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"Scire est nescire, nisi id me
Scire alius sciret."

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THE PREVENTION OF APOPLEXY.[1]

BY

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From the time of Hippocrates physicians have aimed, by methods better and worse, at the forecast of disease. They have perceived that successful forecast is not only of prime utility in the particular case, but is the test by which they must be judged concerning their knowledge of the causes of disease, a knowledge in which must lie, in the long-run, our command of the means of cure. And if, leaving the particular instance, we turn our eyes towards the broader incidence of disease, we shall see that a knowledge of causes is the only way to what is far more than individual cure, namely prevention. On such con-

[1] This paper, although not a verbatim report, is substantially the address given by Professor Clifford Allbutt at the Meeting of the Bristol Medico-Chirurgical Society on January 11th, 1905.

siderations as these we may be content to be judged to-day. To the great Italians of the early renascence we owe far more than we are wont to acknowledge. To them we owe not indeed Harvey himself, but surely the spirit and the teaching which made Harvey what he was; and as in Harvey physiology began, so pathology had its chief source and inspiration in Morgagni.

Virchow has said that the key to Morgagni's reform was the substitution of the question, Where is disease? for What is disease?—the substitution of an inquiry into the place and order of the phenomena, instead of that which had ruled the Middle Ages, the inquiry into the essence of disease. Since Morgagni's day the revelations which have rewarded this change of attitude and method have been prodigious, and not in the direct results of anatomical search only. By the new method wide and deep changes have penetrated thence into the fields of clinical and therapeutical knowledge. In therapeutics, for instance, the distance between Morgagni and Wilks was as great as in morbid anatomy itself. The reform was sound, useful and progressive, almost above our appreciation. Yet, like all reforms, it has had its defect or partiality. To ask, as Virchow put it, Where is disease?—unless we give an infinite extension to the word "where"—is to convey too stationary a sense to the problem; to make it too static. Among the consequences of this limitation was a certain fatalism, both of pathology and of therapeutics; and this the more that, as in the vast majority of cases the necropsy does not take place till the disease has wrecked the organs affected, the mind is impressed by the destructive and inevitable aspect of the event, rather than by the processes, often very protracted and insidious, in which the event was generated. It is recognised on all hands that from this static attitude of observation prognosis and therapeutics suffered much loss; and during the last decennium the acuter observers of clinical phenomena have been engaged in encouraging a less fatalistic prognosis in diseases of the heart and kidneys, in tuberculosis, and in many other maladies. In diseases of the nervous system, as we should expect in the sphere of greatest complexity, one in which the causes are more profoundly withdrawn from direct observation, this

fatalism still oppresses the physician. Where these diseases are seated is but too apparent; but by what processes they accumulate is as yet concealed from us. Now the ravages of disease are grievous enough without the despondencies of the *post-mortem* room. We shall gain heart, and the patient will gain hope, if we turn our eyes for a little while from this theatre to the clinical laboratory, in search of the genesis of disease; in an endeavour to detect the first small beginnings, which, unchecked, issue in such miscarriage. We shall not indeed go back to inquire, What is disease? but we shall not stop at the morbid anatomist's question, "Where is disease?"; we shall ask farther, How is disease?

Clinically, we have given up the catastrophic notion of disease; we have learned that its catastrophes are sudden only to him who is blind to their approaches. The springing of a mine is astonishing to its victims, but is no surprise to the sapper who laid it, who carried the clues to his tent, and at the just moment touched the button. The very name of apoplexy —in Latin, *sideratio*—signifies a stroke as if from the stars; the victim is, as it were, planet-stricken. And so it appeared to our fathers who gave it the name, and to many a generation after them; nay, so it appears still to the inexpert public. Yet nowadays the pathologist himself—possessed at first with fatalist submission, silent before the violent outbreak of blood into the delicate web of the brain, pondering in helpless dismay what man could have done in face of such a stroke—has begun to try to get behind the catastrophe. Now he is demonstrating to the bystander that granular kidneys, perhaps,—at any rate damaged arteries, and an abnormal heart, are precedent conditions. So that the event is surprising only to the unwarned. At this stage the eager mind questions farther and farther—how comes it that these arteries, these kidneys, this heart, are so changed? For all this is no swift infliction; it signifies modifications implying a long duration and gradual progress, modifications which again cannot have been without their insidious causes to take us farther back still; and so on. Thus, as in tuberculosis, we are laying aside the attitude of amazement or resignation, and are putting on that of the scout; if perchance

we may detect the first approaches of the enemy, or even by timely diplomacy prevent him before war is declared. We are receding from the fatalism of the early pathological anatomists, and returning to that desire for more and more timely forecast which distinguished the schools of Cos and Cnidus; the forecast in which lie the proof of scientific knowledge and the means of prevention.

At the present time we are enthusiastic in the foreknowledge and prevention of tuberculosis; we are waylaying the epidemics in their courses; we are ardently pursuing the tracks of cancer; and as one by one we disarm them, we are gathering understanding and hope. It is my desire to-day to bring you to a like encouragement in respect of the apoplexy of cerebral hemorrhage.

That cases of "stroke" are not all the same kind, we have known for some time past; especially since the researches of Kirkes. On the cases in which healthy arteries are blocked by casual embolism, however, I have not now to speak; moreover, we will set aside all cases in which the effects of extrinsic poisonous or bacterio-toxic agents are concerned. We are to consider those in which disease of long-standing is found in the arteries about the seat of the hemorrhage. In a large number of these cases, however, we find no effusions of blood, or none in bulk, at any rate; the circulation of the brain is arrested, but by a silting up of the arteries rather than by rupture of them. Moreover, in these cases we find that the heart, abnormal as it may be, does not indicate present or previous hypertrophy; often indeed an atrophy. We find too that the arteries of these cases often present calcification of the middle coat, while the body at large is one in which senile change is far advanced, and probably not advanced prematurely—the patients do not run between sixty-five and seventy, but between seventy-five and eighty-five. In apoplexy by cerebral hemorrhage, the outbreak in the brain is no fault of this organ but wholly its misfortune. By apoplexy we lose day by day able citizens whose mental powers before the fatal seizure were intact both in vigour and quality. The pathological signs are those of some slow injury to the blood-vessels; but the heart is or has been hyper-

trophied, and the result of the conditions is rupture rather than occlusion.

Now what do we know, or what can we find out, concerning these awful visitations? For the last quarter of a century I have taught that in a large number of cases of sanguineous apoplexy the kidneys are not granular; and if in some of them they are fibrous, they do not partake of the nature of chronic Bright's disease. This I affirm on the condition of the secreting structures of the tubes, which dwindling or crushed as they may be here or there, present no foci, or traces of past foci, of degeneration or necrosis. Professor Osler has given his valuable judgment in favour of the proposition that a large number of cases of the kind we are contemplating are not attributable to chronic Bright's disease. Now my belief is that, if we can carry our analysis of causes far enough back, we shall reach a junction where we shall travel on a line of common approach to apoplexy with Bright's disease and to apoplexy without it; but for present convenience, and under the restriction of time, I must rule out the Brightian class. It is by the study in the first instance of the simpler case that we shall get back to the junction.

Now in a case of apoplexy what do we find in the damaged parts? Brain assumably healthy; heart hypertrophied; arteries spoiled: the phenomena lie then in the mechanism of the circulation. Thus, in accordance with our desire, we step back from the static point of view and enter upon the dynamic. We shall try to discover which of the variables in this function are altered? In a simple case the heart presents no primary changes, but changes altogether secondary; essentially it is not only healthy in tissue but has worked for a long time at high pressure, thus doing not less but more than its contract. Such changes as may be seen in it are compensatory, or, if morbid, evidently consequential. Then what about the arteries? These have undergone a change, call it atheroma, sclerosis—what you will, so long as we are agreed on signification—but, diseased as they are, they have not silted up, as in the cases we contemplated but to put aside, but have burst. Why have they burst? Because they have been submitted not only to the mean pressures of age

but also to the augmenting mean pressures of a reluctant peripheral circulation. They have burst at last for the same reason that they have sustained gradual injury; namely by the accumulation of obscure stresses, which, if we might observe and measure them, we might avert and interpret. I put aversion before interpretation because happily in many conditions of life we can take up our guard before we know why we are the object of hostility, or even before we recognise our enemy. We do not know why in cases such as these the circulation is embarrassed: the cause of the reluctance in the periphery lies still beyond our ken. But, briefly, I may say that the cause must consist either in a narrowing of the calibres of the arteries or stream bed over a very extensive area, if not indeed universally, or in an increase of viscosity with excessive friction in the blood itself. I have been asked somewhat tartly how I demonstrate excess of viscosity, and in what it consists? My answer is, that I never said that the blood in these cases is more viscous, but that there exist the two alternatives only which I have cited —narrowing of the channels and increased friction within the fluid itself. To decide which is the cause, or, if both, the degree of each in the combination, I never pretended. But I admit that it is not easy for me to conceive a contraction of arteries in all or virtually all areas without compensatory dilatation in some of them. It has been suggested to me that in elderly persons the depressor property of the heart and vaso-dilatation may be stiffened or abolished. But a simple test will indicate that our vaso-dilator mechanism is not much abated. Let an elderly man enter a hot bath. For a short time at first he will find the radial artery contracting; let him continue however to observe, and in two or three minutes he will find the artery beginning to dilate, until it is largely distended; and a corresponding afflux of blood takes place to the surface. This is not dilatation of the splanchnic area, it is true; but if vaso-dilator mechanism does not rust up in one area, it probably does not in other areas.

It is alleged that in the elderly the arteries become refractory because of sclerosis, whereby their walls grow sluggish or stiff. This explanation, by the way, is inconsistent with that which

attributes excessive arterial pressures to arterial contraction over large areas. And in any case to attribute high pressure to sclerosis, and to overlook the large class of cases in which arterial degeneration is manifested without rise of pressure is bewildering. Again, by some writers increase of arterial pressure is explained as a "hypertonus" of the arteries, a resuscitation surely of that older pathology which used to attribute disease to "hypertrophy of the heart"? It is conceivable, of course, that a morbid state of the vaso-motor centre, due to some persistent irritation in the spot, might keep up general and persistent vaso-motor contraction. Still this is not very probable, nor do I know that this is the view of those who discuss "hypertonus." Must we not assume for the present that hypertrophy in the arteries is produced by the same mechanism as in the heart, namely by persistently excessive pressures on their internal surfaces? In my opinion the vice lies not in a morbid tone of the vessels, but in excessive internal pressures such as obstruction at the periphery would set up. If, then, arterial spasm be also a factor in the hyperpiesis, it seems more consistent to attribute this to the same cause as that, whatever it may prove to be, which chokes the periphery. My observations are that in some cases of rising pressures without Bright's disease arterial spasm, whether primary or consequential, is manifestly present; but in others, perhaps the majority, it is not obvious. In some we have what I have called the "large, lax and leathery" artery; in others we find the "wiry" artery. The first kind may be regarded as "arterial tension," for in these cases the effects of tension are very manifest in the consequent tortuosity of the vessels; in the walls of wiry vessels this stretching effect, and indeed the sclerosis itself, is less apparent. Yet in my experience the wiry hyperpiesis is far more difficult to reduce.

However, to come to the matter of prevention; if, concerning the mechanism of persistent rise of mean arterial pressure, we are in the dark, happily there is less doubt as to the treatment of the condition. If the patient is to be saved from an apoplexy, it is only by long anticipation that the proclivity can be counteracted. It seems probable that a disposition to hyperpiesis

runs in families; if so, in such families vigilance is imperative. But the tendency is too common to be regarded as one confined by any such hereditary limits. Even in children and youths it is by no means rare, though I have little information on the deferred consequences of hyperpiesis in such patients. Such information must be obtained from the family physician, who watches children from infancy to youth, from youth to maturity. This I can say, that in young people it may thicken the arteries plainly enough; but the thickening is probably of the muscular coat only, not of the intima, for it will disappear, as a hypertrophy of the heart disappears in persons who put aside causes of exceptional stress on this organ. The care of these juvenile cases, then, does not fall so near the group of potential apoplectics as to require our attention to-day. Still, I think a study of these precocious cases may throw light not only on an undescribed disorder of children, but also upon the causes of hyperpiesis in the elderly.

The aim of this discourse is to prevent apoplexy, which is a message to elderly persons. I have held against all comers for many years that arterio-sclerosis, as distinguished from the sclerotic decay of senile involution, is not the cause but the consequence of rising arterial pressures. In my view, then, prevention must lie first in the detection of a special tendency to a persistent mean rise. I need not say that occasional rises, even of morbid origin, are apt to occur in all persons, and to disappear before the vessels are permanently damaged. In others, however, the rise is persistent, often to very high degrees; yet if this tendency be detected in its earlier phases it can—in many instances, at any rate—be reduced and kept down; but the longer the story, the older the rearrangement of parts, the harder reduction becomes. I urge, then, that as a matter of routine every adult of the age of forty and upwards should have his blood pressures measured by the best instruments available, instruments which I have not now time to discuss. And I urge that this appreciation should be repeated every five years, say till the age of sixty, when, if there be no great increase—I say no great increase, for in almost all elderly persons there is some rise of mean pressure—the danger of apoplexy may be disregarded.

Of the principles of treatment of hyperpiesis we cannot be completely assured till the obscure points I have mentioned are cleared up. That there is any difference in treatment between the leathery and the wiry artery people I cannot say. So far I have not been able to discover more than that, as I have hinted, in the latter the perversion is far less submissive to deobstruent treatment, as generally understood, than in the former. Nor can I find any therapeutical divergence of practical value between burly, red-faced people and the spare and pallid. I am disposed to think, however, that pallor and wiry vessels are more frequent among the sedentary, and that the burly, red-faced people are of those who may over-eat and over-drink themselves, but take, on the other hand, much exercise in the fresh air. In the former there is a long history of relative excess in feeding; in the latter of positive excess. It cannot be too earnestly declared that nearly all men, and not a few women, take far more food than they need; and that the sedentary persons, such as scholars, lawyers, or merchants, although prompted by some nervous exhaustion they live more generously than cowboys, need very much less food than they habitually consume. If, then, in any person we find persistent rise of mean pressures, we shall revise his mode of life; advising regulated exercise, abstinence from alcohol—which, if not an initiator, is a potent ally of other influences—and a great reduction in intake of food. In these cases also, the regimen and the waters of certain spas—such as Harrogate, Carlsbad, or Marienbad—are invaluable.

The readiness of response in individuals is very various. In some, as I have said, reduction is attended with much difficulty; in others a couple of seasons at a bath, with punctilious restriction of diet and regular exercise, suffice to put the danger aside, at any rate for a time. In others, do what we may with regimen and medicines such as mercury and salines incessantly brought to bear, the rise, even if set back, comes up again and again. In such persons the ultimate result of apoplexy is pretty certain. It seems probable that the systematic blood-lettings of our forefathers, who were big feeders, was a rough-and-ready method of preventing morbid augmentations of blood pressures;

and I am disposed to think that, practised with more discrimination, we might find in it a valuable remedy in the habit of body I have alluded to. I must honestly confess, however, that I have not had the moral courage to recommend it. Vaso-dilators are, as we should expect, disappointing. The high pressure is conservative, so that to reduce the pressure without removing or relieving the causes which import it is to set natural readjustments at naught. So long as the high pressures can persist the blood is driven through the periphery, and the patient may feel well enough; it is when the cardiac energy begins to slacken, and vaso-dilators are apt to slacken the heart also, that he suffers from the sense of exhaustion, the vertigo and the morning melancholy which vaso-dilators bring on factitiously. Notwithstanding, vaso-dilators may on occasion aid us at critical moments.[1]

I need not say that if a slight apoplexy occur, these measures must be undertaken with the more determination. Too often, unfortunately, we are not consulted until the enemy is upon us; still, even then, on the lines I have indicated, a return of the attack may be postponed with no little success.

In conclusion, let me urge upon you in all cases in which you are consulted by middle-aged persons, to note the blood pressures, and if possible to record them by means of one of the instruments which give us at any rate approximate estimates in this research. Not rarely, in consultation with physicians whose ability is above my praise, I note high blood pressures which they had not heeded, although they may freely admit the truth of the observation when their attention is drawn to it. Even the most capable of us are apt to see what we expect to see, and that only. Moreover the most erudite finger cannot always be trusted. It is my purpose, therefore, to invite you to take heed to the state of pressure in all middle-aged patients, and, if occasion occur, in persons who, not admitting any ill-health, may nevertheless be breeding an apoplexy unawares; a few years more neglect, and the event, unless anticipated by a fatal pneumonia, may be inevitable.

[1] Dr. Oliver, of Harrogate, has had much experience in pressure reduction, and, I believe, relies to some extent on reduction by drugs.

SOME NOTES ON EXAMINATIONS FOR LIFE ASSURANCE.

BY

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IT is commonly supposed that any qualified medical man is competent to undertake life insurance examinations, and many no doubt undertake them with little sense of the nature of their duty to the office by whom they are employed, often with no previous training, and with little knowledge of the problems which they may be called upon to solve. Of late, however, a tendency has been growing in favour of the idea that a life insurance examiner must be a universal specialist, and that no report can be considered complete unless the physical examination of the applicant has included the use of pretty well all the special methods of diagnosis known to the specialists in the various departments of medicine and surgery. When we read that "no means of investigation which would demonstrate the truth, by any diagnostic device whatever, should be omitted, no instrument of precision should be left unused, no matter how troublesome that use might be to the examiner, no diagnostic device should be passed untried, if by aid of instrument or art *one single fact* could be established with certainty which otherwise was only probable,"[1] &c., we cannot but wonder who will be competent for these things.

We all recognise the fact that the examination of a candidate for insurance is a problem in diagnosis, and often by no means an easy one, even after many years of experience; it is also a problem in prognosis, a still less easy one, demanding the most careful consideration; it involves also the recognition not only of disease which is, but of disease which is to be in the future,

[1] *Med. Exam. and Pract.*, 1904, xiv. 459.

and these forecasts demand the highest knowledge and the highest intellectual faculties. To make such an examination and to solve the problem which may arise must take time, and must weary the patience not only of the examiner, but of the examined; accordingly we cannot but think that an intermediate course is the only one possible, and that special examinations—microscopic, ophthalmoscopic, laryngoscopic, otologic, sphygmographic, hæmatoscopic, endoscopic, bacteriologic, and so on—must be left to the judgment of the individual examiner, who will apply them in case of need. However this may be, I read[1] "that the time is coming, nay the hour is already sounded by the clock, when those men who cannot, from lack of training, or from lack of perception of need and duty, be brought to use every means and method of diagnosis in making examinations will cease to be medical examiners." Such views as these will not commend themselves, and will not conduce to the increase of insurance, inasmuch as few candidates will be found ready to submit to such an inquisition.

Now, as regards the examination itself, the insurance offices provide forms for the guidance of the medical examiner. We sometimes wish that the form provided might be a blank sheet of paper: the experienced examiner would often give a better report in this way than by answering a long series of questions, many of which have no bearing on the case in hand. We must not, however, forget that there can be no uniformity in the results unless the various examiners have some such form for their guidance, and that the principal function of the examiner is to ascertain the facts and report the same to the medical officer-in-chief at the head office. It is true he is commonly asked to do more than this, as his opinion on the risk is also desired when he is asked to advise the actuary who knows much better; but the summing up of the whole evidence on the case and the adjudication thereon can only be done by the central authority from an examination of the collected reports of the medical examiner, the agents, the reports of confidential friends, and the opinion of the chief medical adviser.

[1] *Ibid.*

The forms commonly provide that the essential points shall not be overlooked: they are as follows:—

A.—The family history—heredity.

B.—The past medical history of the proposer.

C.—The results of the physical examination at present.

D.—The general appearance of the candidate.

E.—The occupation, habits, residence and general environment.

It is scarcely needful to observe that as a rule an ordinary case presents no difficulty. The first-class life on the one hand, and the manifestly uninsurable on the other hand, are easily determined; but the intermediate cases are those which will tax all the powers of the examiner. Here we have a great variety of problems to solve—those relating to heredity, the effects of previous illnesses, the probability of their recurrence, diminishing or increasing risks as well as present ones, and the exact value of a personal defect with its results in the future. On all those points the examiner has to give information to the actuary, who alone is qualified to determine what is the money equivalent of the defects reported. It is obvious that even with the first-class life no one is spotless: there is always some risk that the possibility of attaining the age of 98—the limit when, according to the British Life Offices, everyone ought to be dead—may be shortened in some unforeseen way. The contract for assurance payable at 98 or at previous death is accepted by the offices on their own conditions.

These conditions are grounded on the duration of life of the normal man, of good parentage and with a healthy environment. This is the requisite standard, but how few of us attain to it. The risk accepted by the office is a great one, for who can predict the accidents of contagion, who can forecast a fatal attack of pneumonia? Many years ago I was asked to examine a spare man with a family history of phthisis. In spite of my recommendation to accept the risk it was declined. Fifteen years later the proposal was renewed, the applicant being quite well and having had no illness during the interval. The risk was then accepted, the first premium paid, death occurred from pneumonia a few months later, and the widow derived much

benefit from the two thousand pounds on which one premium only had been paid. It should be generally admitted that every person should be allowed the privilege of insurance unless good cause to the contrary can be shown. The object of the medical examiner is not to endeavour to reject an applicant, but whilst safeguarding the company for which he acts, he should not decline the risk without very good reason, and should not expect that every candidate for insurance should attain the standard of the first-class life both by heredity and environment. The vital stamina may be deficient or the environment adverse, and yet that particular person may attain a good age and prove to be a profitable client. I was once told by a robust-looking gentleman of over 70 years of age that he was the only surviving member of a family of seven who had died from phthisis, and that he was in early life declined insurance because of his family history.

The most important questions of heredity relate to cancer and tuberculosis. On these two points much information is given in the most recent data of the Scottish Widows' Fund,[1] from which the following conclusions seem to be justified:—

1. The registered increase in the number of deaths from cancer is undoubted.

2. After allowing that this increase is not wholly real, but may be accounted for, to some extent, on the assumption that the true nature of obscure cases of malignant disease has been recognised with ever-increasing certainty in recent years, and that, as a consequence, the statement of death has been made with greater precision than had been formerly the case, there remains a large, real increase to account for the large and progressive mortality from this disease.

3. The age period at which death from cancer is most frequent is gradually declining according to the Scottish Widows' Fund returns.

4. The average age at death from cancer among our members declined by two years from 1874–80 to 1888–94, as contrasted with a rise in the average age at death from all causes of a little over two years.

[1] "The Causes of Death among the Assured in the Scottish Widows Fund, 1874–1894," reported by Claud Muirhead, M.D.

5. The office returns mark a *decrease* in deaths from *internal* cancer of 7.70 per cent., and an *increase* in deaths from *external* cancer of 18.89 per cent. of the percentages in the first septennium as contrasted with the third.

Dr. Muirhead further remarks that "during the twenty-one years under observation, cancer as a cause of death among our members aged from 45 to 65 has made rapid and startling progress."

As regards hereditary predisposition to phthisis, it has been sought of late years to deny that such a factor exists at all, and that all cases of phthisis should be attributed to direct infection. From an examination of the data it is stated that "the logical conclusion is that, in the adjudication of a proposal with a family history of phthisis, while we cannot discard from our minds altogether such history as a predisposing cause of the disease, we must attach a much less degree of importance to it than has been the practice in former years," prior to the discovery of the tubercle bacillus. Not more than 35 per cent. of the consumptives exhibited any family predisposition to phthisis.

A history of pleurisy, as suggestive of tuberculosis, has recently assumed a grave importance, and the latest dictum is that of Dr. William Osler[1] at Oxford, who states that "during the last twenty-five years the evidence has been accumulating in favour of the tuberculous nature of a large proportion of all cases of simple sero-fibrinous pleurisy. The exact percentage is hard to determine, but, in the absence of pneumonia or sepsis, the very existence of a pleural exudate is in itself sufficient to raise a suspicion of tuberculosis."

Hæmoptysis is a non-infrequent occurrence in those who have no other evidence of lung disease, but it is rightly regarded with much apprehension, and it is usually safe to act upon the assumption that there must be more or less active disease in the lung as its cause. Of course the spitting of blood may not be hæmoptysis of the graver kind, but it is usual to decline any proposer until there has been no return of the hemorrhage for seven or ten years, after which period the

[1] *Brit. M. J.*, 1904, ii. 999.

applicant, having reached the age of 35 or 40 and being in good health, he may be accepted as a good life.

Other questions of heredity relate to insanity, diabetes, gout, cardiac conditions, and so on. Of these I remember a notable case of a young lady who, after having been a diabetic for some years, was accepted by an insurance examiner as a first-class life: within a very few weeks she died after a few hours of coma. This lady's father had died of tubercular phthisis after some ten years of diabetes, and a brother has since died from acetinæmic coma as a sequel of diabetes.

Concerning the heart, it is only to be expected that such hereditary maladies as rheumatism and gout should be frequent antecedents of heart disease. It is commonly understood that rheumatic fever in a parent predisposes not only to the same disease in the offspring, but to chronic defects of the heart, even although there may be no history of an attack of acute rheumatism. Hence the insurance offices very rightly attach great importance to the question relating to rheumatic fever.

Diseases of the nervous system must be regarded as likely to be of influence in the offspring. With a family history of well-marked neuroses it would not be safe to accept the risk unless the proposer had reached middle life and had not developed previously any indications of a neurotic tendency. The subject of insanity and epilepsy in relation to life assurance has recently been very exhaustively summarised by Sir W. R. Gowers.[1]

As regards the physical examination of the applicant, the most important and obvious questions relate to the height and weight. The men of moderate stature, ranging from 5 ft. 6 in. to 5 ft. 9 in., are considered to be the most capable, with an average weight of 10 st. 4 lb. to 11 st. 10 lb. As regards the practical estimation of these, it is interesting to note that the heels of the boots are considered to approximately counterbalance the weight of the clothing, so that the person may be measured and weighed in the usual garments in which he appears. It is commonly the rule to allow a margin of 15 or 20 per cent. on either side of the normal average as consistent

[1] *Lancet*, 1904, ii. 1061.

with good health and good constitution, but anything over this margin suggests the perils of obesity, and a marked underweight suggests the possibility of phthisis. Any difficulty arising from over-weight, all other points being good, may be arranged by the recommendation of an endowment policy payable at a certain age, the insurance being then for a short term of fifteen or ten years. This gets rid of the fact that those of over-weight tend to die prematurely of apoplexy, heart disease, atheromatous degeneration of the blood vessels, and having poor resisting power, do not throw off the effects of serious ailments as well as those of normal weight.

Dr. Muirhead [1] remarks that "light-weights are looked upon as undesirable risks, because, being usually of nervous constitution, they take affairs of life more seriously than others, and are predisposed to early death from nervous breakdown and tubercular complaints . . ." The investigation of 524 schedules of males who had died of phthisis, when compared with 502 schedules of those who had died of apoplexy, "corroborates the popular opinion that men of light weight exhibit a special proclivity to phthisis, and that over-weight, while not excluding the possibility of the individual falling a victim to lung disease, is much more commonly associated with disease of the nervous system than with phthisis; so that very light weight in a candidate for assurance must always be regarded by the medical examiner as a danger-signal, warning him to be more than usually vigilant in his investigation of the condition of the respiratory organs."

The same author also directs attention to the fact that the prevalence of consumption is by no means confined to persons under middle life, inasmuch as phthisis is a potent cause of death amongst the older members. The statistics of the Scottish Widows' Fund directly contradict the popular belief that this disease belongs to the period of youth and young manhood, and is rarely encountered after 45 years of age.

I well remember a case illustrating this point some years ago. The wife died from phthisis at early middle age, one after another of her children followed, then the wife's sister living

[1] *Op. cit.*, p. 44.

in the same house, and last of all the father developed an attack of tubercular pleurisy at about the age of 70 from which he died after a comparatively short illness.

It has been remarked[1] that "there is more certainty about the result of examination of middle-aged and elderly applicants whose habits are formed, and who have passed through the dangers and risks of early adult life. There are, however, some special difficulties and pitfalls to be avoided in the examination of these lives."

The question is commonly asked whether the apparent age is in agreement with the age stated. Now this appears to be one of the superfluous questions which might well be deleted from the form. The answers to it must be absolutely unreliable and vitiated by the common experience that some look old whilst young and never look older, some appear to be born looking old, and others grow old but still look young. The question as to resemblance to which parent is another which cannot be of any reliable assistance, and must commonly depend upon the statement of the proposer, unverified by the medical examiner.

The chest measurement is usually asked for, but there must be many fallacious measurements in the case of women applicants encumbered with much clothing and often considerable collections of loose fat. Tables of these measurements[2] show that the medium circumference of the chest varies from 33½ inches in a man of 5 feet up to 40½ inches in a man of 6 feet. Approximately the chest measurement should not be less than half the height; that is to say, a man of 5 ft. 6 in. should measure not less than 33 inches. "A good chest expansion is a great safeguard against pulmonary tuberculosis, and a range of expansion from forced expiration to forced inspiration of 2 inches at 5 feet height and 3 inches at 6 feet height respectively should be the minimum." Women commonly weigh less than men up to a height of 5 ft. 7 in., but over this they may be more.

The problems associated with the examination of the heart

[1] Havilland Hall, *Life Assurance*, 3rd edition, 1903, p. 43.
[2] Havilland Hall, *Op. cit.*, p. 46.

are many and of the greatest importance. On the one hand there can be no doubt that many applicants are rejected on account of supposed heart disease, and *vice versâ* some heart defects may escape observation. Ephemeral murmurs may be mistaken for those of organic disease, and organic murmurs are not always indicative of serious defect. The absence of a bruit is not sufficient evidence that there is no organic defect, and the presence of a bruit does not necessarily render the proposer ineligible. Commonly the mere existence of a cardiac murmur has been considered sufficient to exclude an applicant from insurance, but of late years it has been argued that even well-marked examples of valvular disease may be accepted at an increased premium. The large variety of murmurs of varying intensity and diffusion commonly classed as hæmic would obviously suggest the postponement of the application for three or six months pending the results of treatment. A cardio-respiratory murmur at or outside the apex may be easily mistaken for that of organic disease, and has frequently been the reason for rejection of a candidate. Neither of these murmurs should be a sufficient reason for a definite refusal of the proposal. But on the other hand, if there exists a definite systolic murmur at the apex believed to be of organic origin, and even if there should be no other evidence of heart defect or of weakness of circulation, the uncertainty of prognosis in such cases must render the applicant ineligible for insurance. It must be impossible for the medical examiner to advise the office to accept the risk when a sudden heart failure is at any time a by no means remote possibility. The presence of a murmur of mitral or aortic stenosis or one of aortic regurgitation will be still more emphatic in causing rejection. In spite of the fact that cases of aortic regurgitation and of mitral regurgitation with good compensation have been known to continue for very many years, and the patients sometimes survive to a good old age, yet the uncertainty of such conditions, and the facility with which failure of the compensatory conditions may arise, must give no hesitation in absolutely declining to entertain an acceptance of such risks. A diagnosis of hypertrophy, indicated by a supposed displacement of the apex beat, has often given rise

to a difficulty. Here there are many fallacies due to obliquity of ribs, and other causes which may lead the examiner into error. There are many conditions where, in the absence of a murmur, the position of the apex beat, its character and that of the sounds, the rhythm and regularity or otherwise of the heart beat, may be such that the integrity of the heart muscle may be gravely questioned: in all such a rejection of the proposal is inevitable. The cases in which fatty heart may be suspected give much ground for question, for if all cases are rejected in which the impulse is feeble and irregular, it will lead to the loss to the company of many good lives.

Of the pulse-rate there can be no rigid limit. Nervousness is not confined to women, and a quick pulse is often the result of many trivial and temporary causes. Cases of persistent tachycardia or bradycardia should lead to inquiry as regards the possibility of brain lesions, of arterio-sclerosis, fatty heart, Graves' disease, or excess of alcohol and smoke.

In connection with diseases of the arteries and aneurism it is well to remember that arterial murmurs of an ephemeral character may be due to the pressure of unusually well-developed muscles. It was once my duty to report on an eminent cricketer who had been declined insurance in consequence of a murmur below the clavicle, which was no doubt due to this cause. There was no other defect, and the risk was duly accepted.

The state of the genito-urinary organs presents many questions. Syphilis and gonorrhœa appear to be remarkably rare in applicants for insurance, and hence the need for critical clinical observation on the part of the observer, and especially as to the veracity of the applicant. Of course no case can ever be accepted so long as sugar or albumen is found in the urine, but a temporary glycosuria or a temporary albuminuria would not permanently exclude the candidate from insurance. A passing glycosuria in middle life is quite as common as what is called cyclic albuminuria in the youth, and although it cannot be discreet to accept the risk in the presence of either, the disability may be only temporary and need postponement of the proposal for three or six months.

The general appearance of the proposer presents many points for observation: anæmia, or cyanosis, injected capillaries of the cheek, œdema of eyelids, an icteric tint, or contracted pupils, the condition of the tongue, throat, gums, and teeth, the proportion of muscle to fat, and the patient's bearing under examination, as unusual reticence and sometimes a craving for morbid accuracy may give information of an important character. All these points should be passed in mental review and noted when needful.

The older forms commonly make an inquiry as to the temperament of the proposer. Now the modern medical man is not educated in the classical temperaments, and has little regard for them. If he attempts an answer to the question he does so in a casual kind of way, deeming it of no importance. Dr. Stillman [1] has the audacity to devise a new series of temperaments of his own. He cuts down the classical four—lymphatic, sanguine, bilious and nervous—to three, and those he designates on an anatomical basis—motive, vital and mental. He remarks that "when either of the temperaments exists in excess, the result is necessarily a departure from symmetry and harmony both of mind and body, the one always affecting the character and action of the other. Perfection of constitution consists in a proper balance of temperaments, and whatever tends to destroy this balance should be avoided." We are told that in this country diverse nationality and parentage render it more and more difficult to find typical specimens of the normal temperaments, and that the same individual at different ages may be classified under different headings. According to age, the child approximates the sanguine or vital temperament; the mature adult the bilious; while advancing age produces a tendency either to excess of the nervous or phlegmatic elements. We think that the whole question of temperaments, and the supposed liability to particular forms of disease associated therewith is so beset with fallacies that they are of little use in estimating the probable duration of life or liability to disease.

The words diathesis and cachexia are also of little use from

[1] Stillman, *Life Insurance Examiner*, 1888.

the insurance standpoint. Few cases with such chronic ill-health as would justify the appellation "cachectic" are likely to apply for insurance, and these would be at once recognised as ineligible. As regards the strumous, gouty and rheumatic diatheses, there will be information derived from the family history.

The information as regards the vital statistics of the family is at all times a little difficult to obtain; the want of knowledge and the fallacies of memory greatly test the patience and the tact of the examiner. It is not surprising that people know so little of the causes of death of their grandparents, whom often they have never seen and of whom they have rarely heard; beyond the father and mother the information can only be approximate, but it becomes of importance when either parent has died in early life. It is also not to be wondered at that many applicants know very little of the cause of death of elder brothers and sisters whom they may have never seen, and of whose diseases they can personally know nothing. Any person of intelligence should be able to state the cause of death of brothers and sisters who have been known to them, but it is not surprising that the non-medical mind should often fail in giving anything like an accurate statement of events which may have occurred many years previously. The examiner has to be cautious in the acceptance of these statements, and especially when there is method in the want of knowledge and apparent want of memory which may be more feigned than real.

We often hear of insurance without medical examination, and of the alleged uselessness of medical selection. No doubt there are many fallacies into which the most careful examiner may fall, and the most honest judgment may be neutralised by the unavoidable accidents and uncertainties of life, but it has been shown by the statistics of the Scottish Widows' Fund[1] that an enormous disproportion is observed between the rates of mortality from consumption of those insured and those recorded by the Registrar-General. The deaths from consumption at all ages amongst the selected lives were 81.15 per 10,000 as compared with 178.29 during the ten years 1881–90, as given

[1] *Op. cit.*, p. 39.

by the Registrar-General. This disproportion is clearly due to the medical examination which each candidate has to undergo before being admitted to the benefits of insurance. It is also scarcely necessary to remark that the mere presence of a medical examination prevents the application of the large body of persons who are known to have organic and other defects which would render their acceptance improbable. No one likes to be rejected, and few will make any overtures if they have any suspicion that they may not be acceptable.

Much disputation has existed from time to time as regards the fee which the offices should pay for the medical service rendered. It has always appeared to me that there can be no rational excuse for the practice of cutting down the fee to one-half because the amount to be insured is small. The examination is the same whatever the amount of the insurance may be. No honest medical examiner can proportion his examination to the size of the fee or to the sum insured. This will always take a considerable time and require the same careful consideration, and it is not necessary that the medical examiner should know whether the proposal is for one hundred or ten thousand pounds. So also as there is no reason for cutting down the fee for the smaller sums, neither is there any for doubling it in the case of the larger amount. It is true the responsibility appears to be greater; but this should have no influence in the examination, which is presumed to be in all cases complete, thorough and honest.

NEPHROPEXY BY MEANS OF THE APPLICATION OF STRONG CARBOLIC ACID AND TEMPORARY SUPPORT,

WITH REPORT OF EIGHT CASES.

BY

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IN the *Lancet* for 1902[1] I briefly described a new method of nephropexy by means of the application of strong carbolic acid to the surface of the kidney, and as the method has been adopted by others, and has proved very satisfactory in my own hands, it may be well to give the details in this *Journal*.

My object in first attempting the method was to produce such a change in the surface of the kidney by chemical irritation that it would become covered with granulation tissue which would contract firm adhesions to the contiguous parts in a natural position, the adhesions so formed organising into firm fibrous tissue so as to ensure a secure anchorage for the organ. The results have borne out the expectations, and I have been able to watch the gradual development of the granulation tissue by actual inspection, its cohesion to the abdominal parietes, and, in two cases, I have been able to prove that the resulting fixation is so secure by the ultimate fibrous union that it becomes impossible to detach the kidney from the parietes with which it becomes firmly incorporated, except by cutting it away.

The Method.—I have employed the transverse or the oblique lumbar incision, the patient being on the side with the opposite loin supported by a pillow in order to increase the ilio-costal space; but the method could be carried out by the longitudinal dorsal incision if preferred. The muscles are in part divided and in part separated in the direction of their fibres. The last dorsal nerve may be identified with a little care, and held out of the way by a loop of catgut or silk and a pair of pressure-forceps. On complete division of the lumbar aponeurosis the

[1] *Lancet*, 1902, i. 1822.

outer fatty capsule appears and usually bulges into the wound when the kidney is pressed upon from the front. This is caught up by two pairs of forceps, placed far back as near the erector spinæ as possible, and divided between them. Any excess of this loose peri-renal fat should be excised. Occasionally it will be necessary to divide a few fibres of the erector spinæ, or of the quadratus lumborum when this latter is of unusual width. The finger is then passed into the wound to identify the kidney while the assistant presses on the abdomen in front. The kidney is then stripped of its surroundings as far as possible *in situ*. It is common in cases of wandering kidney, probably as the result of attacks of inflammation, to meet with strong

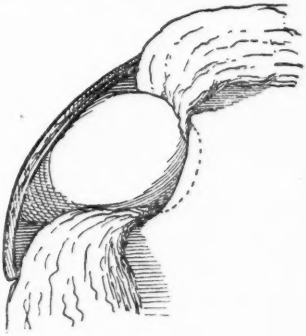

Fig. 1.

Lower pole of kidney supported by a gauze sling.

fibrous bands, some of which may need the scissors or scalpel for their division. Occasionally the whole hand must be inserted into the wound to free the upper pole of the kidney. Then the organ is brought carefully on to the loin by its lower pole, the body and upper pole following. The clearing of the kidney is then completed by finger and scissors, if necessary, until the renal pelvis is plainly visible. Gauze pads are then placed in the wound, and the whole surface of the exposed kidney is thoroughly painted with strong liquid carbolic acid two or three times by means of a swab held in pressure-forceps. The kidney becomes whitish in colour and sticky to the touch. The upper pole in particular should receive thorough treatment. The

gauze is then removed from the wound and the kidney replaced into its normal position in the hypochondrium, first insinuating its upper or anterior pole. The centre of a strip of iodoform gauze, some 18 inches long, is next placed around the lower pole of the kidney, the ends remaining out of the wound. (Fig. 1.) Its object is simply to act as a loose temporary sling for the kidney during the granulating stage, and after the anterior part of the wound has been sutured a second piece is inserted lightly down to the kidney, and over this the two ends of the first piece are tied loosely together. This securely anchors the kidney for the time, and prevents any possibility of its dropping out of place. Plenty of absorbent antiseptic dressing is applied, a firm pad of absorbent wool placed over the hypochondrium in front, and the whole secured by a carefully-adjusted binder. I formerly employed through and through sutures of silkworm gut for the wound, but now prefer to suture in layers, employing continuous catgut sutures for the muscular and aponeurotic layers and silkworm gut for the skin. The reason for this more accurate suturing is that if through and through sutures be employed the resulting scar is apt to be painful during lateral and rotary movement of the body, when, in the natural condition of the parts, the various planes should slide upon one another. The restoration of this condition is favoured by suturing in layers.

Pathology and After-treatment.—During the first twenty-four hours there is a free discharge of watery serous fluid, having a slightly urinous odour, and at the end of this time the wound should be dressed and the surrounding skin cleaned. The two ends of the sling of gauze are untied, to be retied later after the blood-stained packing-gauze is replaced by a fresh piece. By throwing a light into the wound the kidney will be seen to be more opaque and white on the surface of the visible lower pole than at the time of operation, it moves slightly up and down with respiration, and when touched with the finger it feels firm and sticky, like damp wash-leather. The wound may be dressed every other day during the first week, the gauze packing being renewed when necessary. After a few days an excess of lymph will be observed on the surface of the kidney. At the end of a

week the anterior part of the wound should be found healed by first intention and the stitches or continuous superficial suture may be removed. The surface of the kidney is by this time redder than at first. About the seventh day small reddish points or islands of granulations are visible on the renal surface, and by about the tenth day some of these may be seen to have coalesced with contiguous granulations on the abdominal parietes, forming glistening gelatinous strands uniting the two together, and the kidney shows less tendency than formerly to move with respiration. The sling of gauze may be left for ten days or a fortnight, or longer—in one case I left it for three weeks without ill effect. By this time it will have become loosened, and by cutting the lower end short and pulling on the upper end whilst coaxing the lower end round the pole of the kidney with the finger, it may be removed with but slight pain to the patient. I have several times shown that if the finger be placed upon the kidney at this stage it is impossible to dislocate it, firm union having already taken place, and the kidney being secured without any sutures to fix it. From this time onwards the surface of the kidney and the posterior angle of the wound granulate together in one. In the first two cases I used sutures for temporary support, in the remainder I have employed the temporary gauze sling for the purpose. In one instance (Case 6) a special suture was employed to sustain the kidney in a horizontal position and correct a valvular kink in the ureter which persisted otherwise. The method lends itself to this deliberate rotation of the kidney, a project which would be worth consideration in future when the question of ureteroplasty or neo-anastomosis arises.

The recovery in each of the eight cases was perfectly satisfactory, and in one case I had the opportunity of verifying the results after the lapse of twenty months. It was one of the earlier cases in which I had employed through and through sutures for the wound. After some months the scar became painful, and I determined to incise the scar and re-suture in layers. In doing so the scalpel entered the kidney substance for about half an inch in depth before I recognised it by the radial lines of tubules visible on the cut surface, so firmly and

indistinguishably was the kidney united to the surrounding parts; indeed, it was with difficulty that the outer limit of the kidney could be separated from the fibrous tissue around. Moreover, the kidney substance visible was paler and firmer than usual, and scarcely bled, as though a certain amount of fibrosis had taken place by extension from the capsule along the trabeculæ. Another patient died two years subsequently from a perforated gastric ulcer, and has furnished similar evidence, which will be referred to subsequently.

Advantages of the Method.—In the first place it seems to be a certain method as compared with the earlier methods by simple suture in which there is a great tendency to relapse. So great was this tendency with the earlier suture methods that many surgeons formerly advised against the performance of nephropexy. From a careful examination of the cases treated by the method here described during the healing process, I can scarcely conceive that the kidney can again become loose. In the second place it is probable that there is a greater measure of safety by this method. The present mortality cannot be considered satisfactory for a condition which, in itself, is not fatal. Mr. Henry Morris, whom I have personally assisted at many kidney operations, estimates the average mortality at about 2 per cent.[1] This is nearly identical with the mortality of 14 in 846 cases collected by Edebohls.[2] But one must remember that the results of the average surgeon are apt to be less successful than those of surgeons with more operative experience and his results less likely to be published. In the suture methods, and when the capsule is freely stripped off, there may be some extravasation of urine into the wound, thus increasing the risk. In the former, also, there is a foreign body introduced into the kidney, for all now agree that if the kidney be sutured the sutures should pass well into its substance; whilst in the latter, though the sutures may be only passed through the detached capsule, this probably becomes dead tissue, and a favourable nidus for suppuration should infection occur. Further, by the method here described the kidney is restored to its normal

[1] H. Morris, *Surgical Diseases of Kidney and Ureter*, vol. i., 1901, p. 134.
[2] *Ann. Surg.*, 1902, xxxv. 179.

situation; this is somewhat difficult to obtain with the suture methods, which bring the body of the kidney below the costal margin, and Edebohls goes so far as to deliberately fix the kidney in an abnormal position midway between the costal margin and the iliac crest.

The following cases were all females with the kidney mobile on the right side:—

Case 1.—Aged 24. Had had paroxysmal pains as long as she could remember, with nausea, vomiting, and dyspepsia for two years. Reported after eighteen months to be "quite well with no symptoms."

Case 2.—Aged 18. Paroxysmal pains for two years, accompanied by nausea, constipation, and frequent micturition. She gained much flesh after operation, and left well and free from pain. Subsequently lost sight of.

Case 3.—Aged 25. Had pains as if someone gripped her loin, accompanied by vomiting, increasing for six months. Remained quite well for nine months; then scar became tender and painful. This was incised twenty months after, and resutured in layers, with complete relief. Kidney then found inseparably fixed.

Case 4.—Aged 24. Unable to work with pains in the loin. Belt tried twelve months. Reported herself two years after. Then in service, and feeling very much better than she had been for a very long time. Stays tight and making a distinct mark.

Case 5.—Aged 33. Pains and tenderness, with lump. Could only sleep on one side. A year after operation she wrote: "I thought you would be pleased to know that it is going on quite well. I feel no pain in side or scar unless I overwork or walk, then it passes after rest."

Case 6.—Aged 33. Very severe pain since first acute attack, due to lifting a bed. Intermittent tumour and polyuria. Kidney fixed horizontally, owing to kinking of ureter and overlapping by lower pole of kidney. (Figs. 2 and 3.) Seen two months afterwards; condition then satisfactory. Subsequently untraced.

Case 7.—Aged 47. Pains and sickness, which her physician was unable to relieve, and therefore placed her under my care for nephropexy. Left almost cured of her trouble, and glad she had undergone the operation. Reported eighteen months afterwards that she had lost her sickness and was on the whole very much better.

Subsequent History.—Two years after the operation the patient was admitted for perforated gastric ulcer, and during

the operation for this the kidney was found to be securely fixed. The patient died, and the pathologist reported—that he had to cut the kidney out with a knife owing to its secure attachment; that the capsule of the kidney, which would not peel off, was of

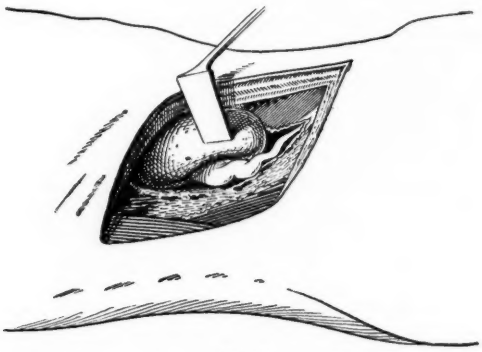

Fig. 2.
Showing kinked ureter pressed upon by lower pole of a loose kidney.

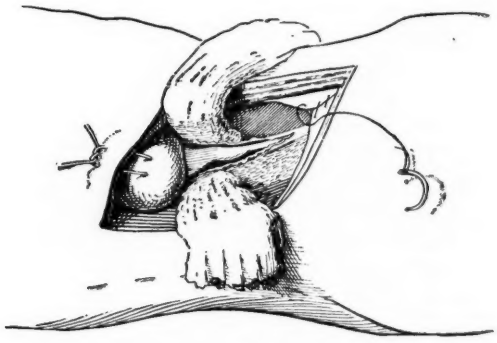

Fig. 3.
The kidney supported horizontally, relieving both the pressure upon and the kinking of the ureter.

almost cartilaginous hardness, and that the interior of the kidney was quite healthy. A point of interest, moreover, was that the fixed right kidney was at a higher level than the left one.

Case 8.—Aged 30. Unable to work for last six months with pains and nausea, and she had no relief from a belt during that time. Reported six months afterwards as free from pain, with kidney firmly fixed.

Although in the majority of cases, including the 50 per cent. of neurotic types and those for whom some appliance suffices to afford relief—an operation is contra-indicated—there still remains a distinct class which may receive almost complete relief by operation, and a cure of the concomitant symptoms, now that we can promise them a reasonably safe and certain method of nephropexy. And this applies particularly to the class of young women whose livelihood depends upon a capacity for physical exertion in comfort, and whose trouble dates from the time of some definite strain.

The Application of strong Carbolic Acid followed by Alcohol.—In the cases above described, and as the method was a new one, it was desirable to watch for any possible symptoms of carbolic acid poisoning. Beyond a transient darkening of the urine there was no indication of any constitutional effects referable to the application. In a personal communication upon a different topic, the late Dr. A. M. Phelps, of New York, called my attention to the fact that Dr. Seneca D. Powell[1] had discovered that alcohol is an antidote to pure carbolic acid. If this be so, there could be no objection to its application to the kidney after the painting with carbolic acid, and this I propose to do on a future occasion. Knowing the value of carbolic acid in causing adhesions for the kidney, I recently employed it in a similar way for the liver and omentum in an advanced case of hepatic cirrhosis, followed immediately by alcohol on the assumption of its antidotal effect. When the carbolic acid was applied to the surface of the liver it became white and sticky, just as the kidney does; but on the subsequent application of the alcohol there was a striking change, the opaque whiteness at once disappearing and the liver capsule becoming translucent again so that the lobules were once more visible through it. At the same time the sticky feeling was lessened. Whether this physical effect—when carbolic acid

[1] *Am. J. Surg. and Gynec.*, 1902, xv. 127.

and then alcohol are applied to a viscus—corresponds with an antidotal effect, remains to be seen. But it points to the possibility of using the method within the peritoneal cavity for the artificial production of adhesions, as in Morrison's (Talma's) operation, and I hope to have further opportunity of testing its utility for the purpose.

ON THE ADVANTAGES OF ENUCLEATION OF THE TONSILS OVER THEIR REMOVAL BY THE GUILLOTINE.

BY

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THE question of the desirability of removing chronically enlarged and inflamed tonsils has now almost ceased to be asked, at any rate among the medical profession. Twenty years ago, however, the matter was one of hot dispute, and medical men seriously argued that the operation was harmful, inefficacious and almost impious—inasmuch as it sought to remove organs which had been designed and placed by Providence for some good purpose. Thus an anonymous writer in the *Medical Chronicle* maintained that the tonsils prevented infection of the system by contagious germs, that they maintained the good quality of the voice, and that they were essential for the attainment of sexual fertility. Further, that after their removal they often grew again, and that patients were obliged to submit to many repeated operations when their removal was attempted. Mackenzie, in a letter to the same paper, and Semon, in a long article in the *St. Thomas's Hospital Reports* (1883), answered all these fallacious statements, and from that time to the present the indications for removal of chronically enlarged and inflamed tonsils, as well as the method of their removal, have never been seriously called in question.

Briefly stated, these indications are that all tonsils should be

removed which cause—(1) obstruction to respiration, as indicated by mouth-breathing or snoring, deformities of the chest, or general ill-health; (2) impairment of the voice; (3) chronic pharyngeal catarrh; (4) recurrent attacks of acute or subacute tonsillitis or pharyngitis.

Tonsils which never give rise to symptoms are not likely to come for treatment. If they give rise to symptoms resulting from mechanical obstruction, these generally occur in childhood, and any delay in removal is harmful, because of the injurious effect upon the patient's growth and health. If they give rise to recurrent inflammatory attacks, every inflammation will be likely to leave the tonsils larger than before, and hence in this case, too, delay is not only useless but dangerous.

The method of removal of enlarged tonsils universally taught in text-books and practised in hospitals is a cutting operation by some sort of guillotine. This has the great advantages of simplicity and rapidity, as it can be practised on adults under cocaine, and on children under nitrous-oxide anæsthesia. But it is quite obvious, and I think will hardly be disputed, that this method is only a partial removal of the tonsil, and most writers and teachers have been content to dismiss this objection by stating or assuming that the portion of tonsil left behind by the guillotine atrophies, or at any rate remains quiescent. Bosworth, it is true, insists on the necessity of the removal of the whole tonsil, and frankly states that no instrument is capable in most cases of entire removal, and he advocates the use of the cold wire snare for the remaining portions.

It is my object in the present paper to inquire into the efficacy of this partial removal of the tonsils by the guillotine in the relief of the symptoms for which the operation is performed, and to consider whether an enucleation of the tonsils is not in many cases a much more satisfactory proceeding.

Anatomy and pathology of the chronically enlarged and inflamed tonsil. I need only refer to points which specially bear upon the subject of this inquiry. The tonsil is a mass of lymphadenoid tissue of an ovoid shape. Its size varies greatly, and it has been usual to speak of this variation as occurring in two chief directions, viz., the transverse and the antero-posterior, the

transversely enlarged tonsils being those which obviously protrude into the pharynx and the antero-posteriorly enlarged tonsils those which are hidden beneath the pillars of the fauces. But for the sake of simplicity I would prefer to speak of the superficial and the deep enlargement, meaning by the latter that part of the tonsil which lies deep to the pillars of the fauces. Most tonsils are enlarged in both directions, and consist therefore of a superficial and a deep portion; but on the other hand many of the cases which most urgently require treatment are those in which there is no superficial enlargement at all, but in which a very considerable deep enlargement exists, and may exhibit itself by its pressure effects on the naso-pharynx and Eustachian tubes by bulging forward the anterior pillar of the fauces, or by repeated attacks of acute or sub-acute tonsillitis. Not only does the anterior faucial pillar conceal the tonsil, but there is often an additional fold of mucous membrane spread over its front surface, called the plica tonsillaris, the development and anatomy of which are described and figured in Dr. Watson Williams's work.[1] The anterior and posterior pillars of the fauces meet each other above the tonsil in an angle which is separated from the upper surface of the gland by a recess—the supra-tonsillar fossa. The crypts and follicles of the tonsil not only open on to the surface of its superficial portion, but also into the supra-tonsillar fossa. It is clear, therefore, that the portion of tonsil bounding this fossa cannot be removed by a plane section which passes superficial to the pillars of the fauces. The lower limit of the gland is not so well defined as the upper, anterior or posterior. It extends as an irregular lobe of adenoid tissue down on to the lateral surface of the tongue, and is quite invisible to ordinary methods of examination. This portion may be called the lingual lobe.

As regards the pathology of this condition of enlarged tonsils, I am not concerned with its origin, but only with its production of symptoms calling for treatment. Lying as they do at the very portal of the respiratory and alimentary tracts, they are constantly subject to infection by pathogenic micro-organisms. The open mouths of the many crypts readily

[1] *Diseases of the Upper Respiratory Tract*, 4th edition, 1901.

admit the entrance of pharyngeal secretion, saliva, sputum, and food débris, and the whole organ is aptly described as a septic sponge. The plentiful blood and lymph supply of the organ readily convey its toxic products and even the bacteria themselves into the general system. Hence the tonsil is often the entrance point for such specific diseases as scarlet fever or tuberculosis, and a constant reservoir of common micro-organisms, from which in any moment of depressed vitality the whole organism may be infected with toxinæmia or septicæmia. In many respects there is a close analogy between the tonsils and the appendix vermiformis. Both are rich in lymphadenoid tissue, both are constantly open to a stream of micro-organisms, both become inflamed and constitute a source of general infection, and in both such cases every fresh attack of septic invasion leaves the organism more liable than before to a fresh attack, and lastly both are useless organs, inasmuch as the patient is better without than with them.

If this view of the enlarged tonsil as a "septic sponge" be accepted, then the necessity of its removal as completely as possible follows from the general principles of surgery.

It remains therefore to inquire to what extent the guillotine fulfils this necessity. Now it has already been shewn how it is impossible for an instrument which makes a plane vertical section superficial to the level of the faucial pillars to remove an anatomically complete tonsil. For not only will the deep portion of the tonsil be left, but the part which lies in the supra-tonsillar fossa as well as the lingual lobe will be beyond the line of section.

It is usually replied that this remaining part of tonsil is of very inconsiderable amount, and will speedily atrophy or cause no further symptons. The actual amount, however, is a matter of fact which can only be observed accurately when the whole tonsil is shelled out, when the ragged line of mucous membrane where it is reflected from the tonsil on to the pillars of the fauces marks the division between the deep and superficial part of the gland. And in a series of cases in which I have enucleated the tonsils, I have found that in all the deep part of the tonsil is bigger than the superficial. I have drawn one

from a child of 8 which is quite typical of this condition (Fig. 1). It is no doubt true that the residual portion of tonsil after the guillotine operation often does largely atrophy; but this is not always the case, as I shall presently give instances

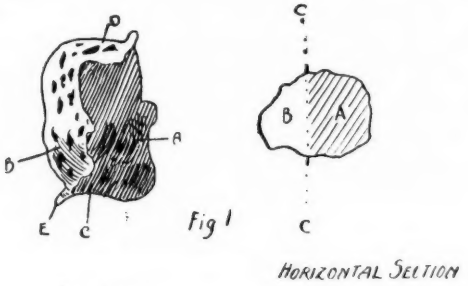

Figure 1 represents an ordinary enlarged tonsil from a child of 8 years, in which a little less than half would have been removed by the guillotine.
Figure 2 is a tonsil from a man of 28 years, in which the superficial portion is represented by a flat surface which lies below the level of the pillars of the fauces.

to prove; and at all events it is well to bear in mind that the ordinary tonsillotomy is merely the removal of about half of the tonsil, and its ultimate success depends on a process of atrophy which we can neither control nor ensure.

Then there is a class of cases in which the guillotine can attempt nothing, because there is no superficial enlargement of the tonsils at all. In these cases, which occur usually in adults, the only indication of tonsillar disease is afforded by recurrent attacks of septic sore throat with high temperature and its accompanying symptoms. Very often there are no very acute attacks, but the patient has a chronic pharyngeal catarrh with occasional exacerabations. Instead of a projecting tonsil, a depression exists between the faucial pillars, and in this depression the plugged follicles of the tonsil are seen. And if one finger be placed on this and another outside the angle of the jaw a considerable mass can be felt placed deeply in the tissues of the throat. When this is enucleated it is seen, as in the accompanying figure (Fig. 2), to be quite as large as the pieces of tonsil usually cut off by the guillotine.

Enough, then, of the anatomical argument. Let us turn to the empirical test of results. In the first place, it may be conceded that a large proportion—the majority probably—of the cases treated in the ordinary way by the guillotine do well, *i.e.* have no further symptoms. In these the residual, deeply-placed portion of tonsil shrinks or atrophies. But there remains a proportion of cases in which this is not the case, and what this proportion is it is very difficult to say, for the majority of them do not come back to report their progress after recovery from the immediate effects of the operation. They are relieved of the "stuffy feeling" in the throat and of the more obvious mechanical effects of the large tonsils; and if they suffer from a "sore throat" they are content generally to attribute this to a "weak throat," and as they can see no tonsil, they do not suppose that they are still suffering from "enlarged tonsils." Or it may be that they are of a more critical and dissatisfied disposition, and they say that their tonsils have grown again, and they advise their friends not to have their tonsils "cut." I suppose everyone in general practice must have met with such cases. I should like to give three examples.

Case 1.—A man, aged 21, after getting wet, contracted great enlargement of the tonsils, producing great blocking of the pharynx, but no inflammatory symptoms. These were partly

removed at the age of 22 by a London specialist, who used a guillotine. For a year he was quite well. Then for the next six years he constantly suffered from septic sore throats. He never went twelve months without an attack, and sometimes had as many as three or four in one year. The acute stage of each attack lasted about one week, and occasioned high temperature with rigors, and convalescence occupied two or three weeks. He consulted the specialist again, and was advised to use gargles and sprays or have the tonsils touched with the cautery. This was not done at that time. After six years of recurrent tonsillitis he submitted to the cautery operation, which was applied on several occasions under cocaine. This gave him a year's freedom from sore throat, after which he again contracted follicular tonsillitis. He then had the deep portions of the tonsils scraped out, and has not had a sore throat for three years.

Case 2.—A woman, aged 25, consulted me for a severe sore throat. She had a distinct "quinsy" on the left side, and gave a history of several similar attacks. The tonsils were both considerably enlarged, and I advised her to have them removed when the acute inflammation had subsided. To my surprise, she said that they had already been "cut out," and that she had had more frequent sore throats than before the operation. She declined any further surgical treatment.

Case 3.—A lady, aged 32, anæmic and with some hemorrhagia. Gets frequent attacks of sore throat, with swelling and redness of all the pharyngeal mucous membrane, and the appearance of a number of purulent spots between the pillars of the fauces, where there are placed deep, enlarged tonsils. Her attacks of this kind are so frequent, and leave so much debility, that she leads the life of an invalid. She has had constant medical advice, and has been so often told that her delicate throat is the result of constitutional weakness and anæmia, that she cannot be brought to believe that if her tonsils were removed her general health would improve, as I have no doubt it would. I may add that she has several times had the throat touched with the electric cautery, with no apparent benefit.

I have met with several such cases in my own limited experience, and therefore conclude that they are far from uncommon. I have consulted many books and asked several throat specialists about this point, and the usual teaching seems to be that every case should be treated with the guillotine, and that if any case so treated presents symptoms of recurrent septic inflammation afterwards, the choice lies between the galvano-cautery and a scraping operation. A word about the cautery.

If it is to be efficacious in removing the deep portion of tonsil, it is evident that it must be applied for a great number of times, considering that each application cannot remove a greater depth than about $\frac{1}{16}$ inch, and this only over a small part of the surface. Each application is painful, and needs several days for recovery. And any scraping or enucleation attempted long after the guillotine has been applied and repeated attacks of inflammation have tied the tonsil down by cicatricial tissue will be very difficult.

Surely it would be a more reasonable proceeding to remove the entire tonsil in the first instance, and so aim at a radical operation instead of deliberately removing only half the diseased organ and trusting to luck that the remainder will wither away. For if the operation of enucleation of the tonsils be performed primarily, it is very easy—in most instances easier than by the guillotine—and its only drawback is that it requires a deep anæsthesia by ether or chloroform. A few words as to the details of the operation may not be out of place, as the subject is either ignored or but briefly discussed in text-books. The patient is placed in the same position as for the removal of adenoids. After anæsthetisation the mouth is opened by a gag, and in children a Smith's cleft palate gag with tongue depressor is very useful. The tonsil should be enucleated from above downwards, the tip of the finger being placed in the supra-tonsillar fossa, and the gland shelled out from the pillars of the fauces. This allows of it being grasped by a pair of catch forceps, and it can often be twisted off. I like the ovum or sponge forceps with fenestrated blades, as these give a good hold without tearing. Generally, there remains a pedicle which has to be cut. This consists of the tissue upon which the lingual lobe of the tonsil is situated, and it runs into the mucous membrane of the tongue. If it is pulled out, a piece of mucous membrane is torn from the tongue or pharynx. If the tonsil is stripped from the tongue upwards, the mucous membrane of the palate is apt to be torn. There are no dangers in this operation apart from the anæsthetic.

Hemorrhage is less than in the cutting operation, and can be reduced to a minimum by a preliminary injection of 5 min.

of a 1 in 1000 solution of adrenalin chloride into each peritonsillar region. In some cases it may be necessary to incise the mucous membrane between the tonsil and the anterior pillar of the fauces as a preliminary to the enucleation, but the deep part of the operation can always be done with the finger. The fear of wounding the internal carotid artery is a myth, as it is $\frac{4}{5}$-inch away from the bed of the tonsil, and separated from it by the superior constrictor muscle of the pharynx.

I would venture to suggest, therefore, that if the tonsils have to be removed, the aim should be to remove them completely, and that this can only be done by enucleation in a number of cases, chiefly occurring in adults. And, further, that enucleation should be resorted to without delay in those cases of recurrent tonsillitis where the whole tonsil lies buried behind the level of the fauces.

THREE CASES OF OVARIAN TUMOUR COMPLICATING PREGNANCY, LABOUR AND THE PUERPERIUM RESPECTIVELY.

BY

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THE greater incidence of diseases of the ovary during the child-bearing period renders their occurrence as complications of pregnancy and labour far from surprising.

Ovarian disease does not afford an effective barrier to conception. Spiegelberg, for example, reports that on two occasions he examined soon after labour cancerous growths of both ovaries in which not a trace of healthy tissue remained; and Sir John Williams[1] has recorded a case in which pregnancy occurred fifteen months after one ovary had been removed for

[1] Williams, Cavendish Lecture, 1897; *West Lond. M. J.*, 1897, ii. 141.

cystic degeneration, and where towards the end of pregnancy the remaining ovary was found to be the seat of a large cystic tumour. I have myself removed two large ovarian dermoid cystomata three months after a full-time confinement.

Ovarian disease, however, tends to produce sterility. Simpson[1] estimates that while one in ten of all married women is sterile, the average of sterility in married women who are affected with ovarian disease is one in three or four. McKerron believes that the complication occurs something like once in every 2,500 pregnancies. One of the most recent contributions to the literature of the subject is the excellent and valuable monograph of McKerron,[2] of Aberdeen, whose description and analysis are based on a series of 1,290 cases, and to this source I am indebted for many of the facts quoted in this paper and for the lucidly-framed summaries of treatment. The character and site of the tumour are highly important, as these features affect the progress of pregnancy and labour, and also the puerperal convalescence.

The majority in McKerron's series were cystic, but a large proportion—viz. one in four—were dermoids, and this latter variety is for various reasons the more dangerous. Tumours of medium size are the most common. The distinction between tumours in the abdomen and tumours in the pelvis is an important one, as in the latter situation the risks are greater, especially during labour, when they form an obstruction to the passage of the child, and demand active treatment. As Sir John Williams stated in 1897, the whole evidence tends to show that the condition of pregnancy *per se* favours neither the origin nor the development of ovarian tumours.

With regard to the influence of ovarian tumour on pregnancy, it cannot be doubted that abortion is frequently caused by the mechanical effect of pressure and adhesions, and also from the supervention of complications, such as torsion of the pedicle, inflammation or rupture of the cyst, or peritonitis. Large tumours are more liable to interfere with the normal duration of pregnancy, and the larger the tumour the more likely is

[1] Simpson, *Diseases of Women*.

[2] McKerron, *Pregnancy with Ovarian Tumour*, 1903.

gestation to be interrupted. Further, from their situation in the pelvis, small tumours tend to cause incarceration of the uterus and abortion. From the pressure of the tumour, deviations in the axis of the uterus and varying degrees of peritoneal inflammation are frequently found, and the peritonitis, combined with the embarrassed respiration, favour the production of ascites.

The influence of the pregnancy on the ovarian tumour is decidedly unfavourable. The pressure of the enlarging uterus causes friction and peritonitis. Twisting of the pedicle has been estimated to occur in no less than one of every eight cases,[1] *i.e.* nearly thrice as often as in cases apart from pregnancy. This torsion may lead to rupture of the cyst from rapid distension, due to hemorrhage into its cavity, or from necrotic changes in its wall, or, again, pressure may induce the rupture. Suppuration of the cyst is also not infrequent in pregnancy, and hemorrhage into its substance, apart from torsion, has been reported. To sum up, in every fourth case some complication is to be anticipated in association with an ovarian tumour complicating pregnancy.

Symptoms.—A complete freedom from indicative symptoms is exceptional, though many instances have been recorded where, even in the case of large tumours, nothing unusual had been noticed until after labour had been completed, and even then the comparative lack of diminution in the abdominal dimensions has not been observed, or has been taken to indicate the presence of a second child.[2]

Pain from peritoneal irritation or stretching of adhesions is not uncommon. Irritation of the bladder, constipation, or even obstruction from direct pressure or from adhesions have been recorded. Sudden, acute and persistent pain points to some dangerous complication.

But the symptoms associated with this condition may fail to attract special attention. In many cases the first thing to arouse the patient's suspicions has been the unusual shape or large size and rapid growth of the abdomen. In other cases attention has been attracted to the condition by the pain of

[1] McKerron, *Op. cit.* [2] See Case 3.

a sudden dislodgment upwards of a tumour from the pelvis into the abdomen.

Digestion and respiratory troubles from the distended abdomen are sometimes present, and the presence of ascites with pregnancy should always suggest the presence of an ovarian tumour.

Diagnosis.—When these two conditions co-exist the physical signs of the one may modify or conceal those of the other. The recognition of the pregnancy is, as a rule, the more difficult, and especially so in the early months, when the situation or size of the tumour makes bimanual palpation of the enlarged uterus difficult or impossible. The most reliable signs are changes in the cervix and the shape and consistence of the lower uterine segment. The mammary changes, especially in primiparidæ, may be helpful.

As pregnancy advances the physical signs increase in number and value. The increase in the uterine growth with intermittent contractions of its walls, ballotement, and the fœtal heart sounds are conclusive.

For the recognition of the ovarian tumour symptoms are of little use. It is on physical signs that reliance must be placed. The outline of two tumours may be recognizable, and a furrow felt between them. Ascites may be detected. Vaginal examination is of the utmost importance. The position of the cervix is rarely normal; it may be drawn high up or deviated in any of the pelvic diameters. The recognition of a pelvic tumour is also ensured by the vaginal examination. Rectal examination may be of much value, and examination under an anæsthetic may be necessary.

Differentially the signs and symptoms of the following conditions may require consideration:—Fibro-myoma uteri, retroverted gravid uterus, floating kidney, combined extra- and intra-uterine gestation, ascites, hydramnios, and pelvic exostosis.

Prognosis.—When an ovarian tumour complicates pregnancy the life of the woman is imperilled throughout the whole of the term.[1] The danger lies mainly in the tumour complications.

[1] Bland Sutton, *Lancet*, 1901, i. 383 *et seq.*

Such complications occur in one of every three cases. Small tumours are as dangerous as those of larger size. Early recognition is an important element in the prognosis. If the tumour is recognised and operated on before the onset of a complication the prognosis for the mother is little, if at all, more serious than in ovarian tumour apart from pregnancy. At the same time the prospects of the child are improved.

The *treatment* of ovarian tumour in pregnancy may be summarised as follows:--

1. The recognition of an ovarian tumour during pregnancy should be followed as soon as possible by ovariotomy.

2. Small tumours should be dealt with as radically as larger ones, as they are equally liable to complications.

3. Exceptionally a tumour found in the later months, and believed to be densely adherent, may be left until near the end of gestation. Its removal earlier would probably interrupt gestation.

4. Delay only increases the dangers of operation.

5. The existence of a complication arising from the tumour makes immediate ovariotomy imperative.

6. Equally good results for the mother are obtained at any month, and for the child the difference in the risks is inappreciable.

7. In the case of *dermoid* tumours the incision should be sufficiently large to allow of the tumour being removed entire.

8. If for various reasons consent to operation is postponed the advisability of operation should be especially urged, should the tumour prolapse into the pouch of Douglas.

9. Tapping of the cyst should be reserved solely for cases where symptoms of distress from distension arise, and where ovariotomy is refused or is impossible.

10. Artificial premature labour is contra-indicated in all circumstances where the urgent symptoms are due to the tumour; but where due to the pregnancy—as in nephritis—and likely to be relieved by its termination, the condition must be treated as if no ovarian disease co-existed.

Case 1 was a married lady of 33, who had had no children and no miscarriages. She was sent to me in May, 1902, by Dr. Parsons, of Cardiff, with a diagnosis of ovarian tumour and possibly early pregnancy. These points I corroborated, and the patient, who was very anxious to have a living child, consented to operation the more readily as it was pointed out that the removal of the tumour afforded a better chance of her going to term than if the policy of non-interference were pursued. Some days later therefore, assisted by Dr. Parsons, I removed a large, mainly unilocular cystoma of the left ovary, disturbing the uterus, which was the size of 2½ months pregnancy, as little as possible. The cyst was non-adherent, and contained about two quarts of glairy, straw-coloured fluid. The remaining ovary was normal. An uneventful recovery ensued, and term was duly reached with no untoward symptoms. Dr. Parsons sent for me during the labour, as there had been considerable delay of the head at the brim, and the application of the long forceps had proved unavailing. With the axis-traction forceps a speedy delivery was effected, and the expression of the secundines was followed by a degree of *post-partum* hemorrhage. This was probably due to some interference with uterine retraction from the close adhesion of the uterus to the mid-level of the parietal wound. After gentle kneading of the uterus the bleeding ceased, and though the pulse remained rapid (115—120) for twenty-four hours, the patient made a good recovery, and is now in excellent health. Unfortunately the child died suddenly on the fourth day; the cause of death was difficult to determine. It was possibly due to intra-cranial hemorrhage following the application of the forceps.

The advent of *labour* in a woman who has an ovarian tumour brings with it special dangers. The tumour is exposed to greater pressure and risk of injury, and, further, its presence in many cases interferes with the course of the labour. The distinction here between pelvic and abdominal tumours is important. In the case of the abdominal tumours it may be stated that, as a rule, the small as well as the large tumours retard the progress of labour. The delay is usually in the second stage, and is probably due to the obliquity of the uterus, caused by the larger tumours, preventing the engagement of the head. Uterine force is wasted also by the obliquity of its axis. If there is great distension the expulsive action of the abdominal muscles is interfered with. Adhesions between uterus and tumour may prevent efficient uterine action.

The labour may seriously affect the tumour. Increased

pressure may cause rupture or other injury, and torsion of the pedicle is especially liable to occur in the third stage. The breaking of adhesions between tumour and uterus may induce rupture of a cyst, as also may the abdominal manipulation by the medical attendant.

No special symptoms uniformly mark the presence of ovarian tumour during labour, though Aust Lawrence noted an unusual degree of pain. The diagnosis must rest on the physical evidence of a double tumour in the abdomen.

With regard to treatment of abdominal tumour detected during labour, everything must be done to facilitate labour, by dilatation if necessary, and to complete the delivery as soon as possible. There should thus be less risk of injury to the tumour, and care should be taken in this respect also in manipulations for the removal of the placenta.

The case must be closely watched until the removal of the tumour, which should be effected as soon as possible after labour.

The presence of an ovarian tumour in the pelvis during labour forms a serious obstruction. Early and active interference is called for in the interests of both mother and child. Unaided nature can succeed in these cases only at great risk. In very few has the existence of the tumour been suspected during pregnancy, and the excessive mortality attending these cases is probably attributable to the necessary treatment being frequently carried out under unfavourable circumstances and with insufficient assistance, as well as to the injuries to the tumour during labour.

Dermoid tumours hold a high percentage, and they are associated with the highest mortality. Rupture of the cyst occurs frequently, and "natural ovariotomy," as Playfair terms it, has resulted in the extrusion of the tumour through the torn recto-vaginal septum, or into the rectum itself or vagina. Rupture of the uterus may occur.

The diagnosis is, as a rule, unmistakable as to the presence of the tumour. Its nature may be more difficult to determine. A tumour has been taken for extra-uterine gestation.

The treatment may be summarised as follows:—

1. Ovariotomy is the best treatment if suitable environment and operative experience can be enlisted without delay.

2. If not, reposition by judicious pressure should be attempted.

3. If neither ovariotomy nor reposition be practicable, proceed without delay to aspiration, or preferably incision and packing with iodoform gauze. These measures should be followed as soon as possible by ovariotomy after labour.

4. If the tumour is solid or semi-solid, and not effectively reducible by incision, an attempt must be made to remove it by the vagina or per abdomen. If this fails, Cæsarean section must be performed.

5. Version is in all cases contra-indicated, as also are forceps and craniotomy unless the obstruction has been removed.

6. In performing the abdominal ovariotomy it should be remembered that room may be gained by delivering the fundus uteri through the wound, and a tumour may be raised out of the pelvis during the same operation by counter-pressure per vaginam.

7. Tumours aspirated or incised during labour should be removed as soon as possible in the puerperium.

Case 2 was a primipara of 19 years, whom I was called to see at about 11.30 p.m. on July 3rd, 1903, by Dr. Henry Campbell, of Cardiff. Though the membranes had ruptured some hours previously, the head was not engaged, and was felt high up and to the right through the os, which admitted two fingers easily. The pouch of Douglas and the left pelvis were occupied by a mainly cystic tumour, which, however, presented one or two hard points—indeed, as Dr. Campbell reported, it felt, not unlike an extra-uterine fœtation. We arrived, however, at the more probable diagnosis of dermoid cystoma. The pains were regular and strong. Under chloroform I attempted to push up the tumour, but was unsuccessful. The surroundings and the untimely hour being wholly unfavourable for the removal of the tumour, after a thorough perchloride douche and various aseptic precautions I punctured the cyst per vaginam with a curved trocar and cannula, and drew off about 2½ pints of straw-coloured fluid. The tumour, now considerably reduced, could be well pushed up above the brim, but tended to prolapse when pressure was removed. The head then began to engage, and an hour or so later Dr. Campbell

delivered with forceps a healthy, well-developed child, and the patient made an uninterrupted recovery.

At the Infirmary on October 5th I removed the dermoid tumour of the right ovary. The left ovary, being to all appearances healthy, was allowed to remain. The adhesions were insignificant, and the patient left the institution nineteen days later after a good recovery. The mother and child are well and strong, and the former is now pregnant for the second time and at about the sixth month of gestation. There is so far no evidence of disease of the remaining ovary.

The conditions existing *after labour* are peculiarly favourable to the development of complications in ovarian tumours, and a good recovery in the puerperium is the exception rather than the rule. At the same time it has often happened that the tumour has escaped detection, and in other instances nothing beyond the fact that the abdomen remained larger than after previous confinements has been observed.

Complications which have their origin in pregnancy or in labour may not reveal themselves clinically until the puerperium.

The most common complication is torsion of the pedicle. This is favoured by the lax abdominal wall and the sinking down of the emptied uterus to which the tumour may be attached by adhesions. Suppuration is prone to occur. Rupture of the cyst from dragging on adhesions, and inflammation of the tumour resulting in peritonitis have been reported.

The symptoms may be acute or slight and transient. They may resemble the symptoms of an acute puerperal infection, and the possibility of an ovarian cause for febrile attacks following labour should be kept in mind. An early examination with this point in view before peritonitis has masked the ovarian physical signs is of great importance in diagnosis.

Some acute complication of the puerperium complicated with ovarian tumour has been estimated to occur in one of every two cases. Here again dermoid tumours are the most dangerous, and small tumours are as much to be feared as the larger.

Treatment of Ovarian Tumour in Puerperium.

1. In all cases, complicated and uncomplicated alike, ovariotomy should be performed as early as possible.

2. Provided labour has been conducted with proper antiseptic precautions, the removal of the tumour may be safely undertaken within a few hours after delivery.

3. Immediate operation is imperative in all cases of acute complication.

4. Some authorities advise an exploratory laparotomy in all cases of dangerous puerperal peritonitis. An unsuspected ovarian tumour has on several occasions thus been found and removed with disappearance of all symptoms.

Case 3 was a primipara of 32 years whom I saw, with Dr. Armstrong, of Treorky, in the fifth week of a febrile puerperium. After the delivery it was thought that the uterus was "long in contracting," and the possibility of a second child being in utero was momentarily considered. The abdomen instead of diminishing in girth had latterly been increasing, and there had been dysuria and tendency to retention of urine with various evidences of subacute peritonitis; anorexia, wasting and pyrexia. When I saw her first the physical signs were those of a fluid tumour loosely filling the lower two-thirds of abdomen and separable from the sub-involuted uterus. I corroborated Dr. Armstrong's diagnosis as to the existence of a tumour, and with his assistance I removed a very large multilocular cystoma of the right ovary. It was non-adherent, though the peritoneum was widely injected and some dark peritoneal fluid was removed. The left ovary was healthy. The patient had a considerable rise of temperature for some days prior to and during the first catamenial period following the operation, but apart from that the recovery was good and she has now regained her usual health.

Progress of the Medical Sciences.

MEDICINE.

Pericarditis and pericardial effusion are the subject of several papers. One upon pericarditis commences with the following remark: "Pericarditis is, as a rule, more damaging to the heart than endocarditis. It is almost certain to shorten the life of the person afflicted unless an intercurrent disease should anticipate its effect."[1] It is not perhaps the function of a review such as this to criticise, yet it is difficult to refrain from expressing

[1] Riesman, *Am. J. M. Sc.*, 1904, cxxviii. 466.

some measure of dissent from this remark. In the first place, a distinction needs to be drawn between pericarditis due to rheumatism and to other causes; in the second place, the age at which a patient is attacked is extremely important. Having paid attention to this subject, we believe that the remark about the serious nature of pericarditis certainly applies to pericarditis associated with rheumatism when it occurs before the age of twelve years. In the great majority of cases it is then followed by early death. Pericarditis of rheumatic origin arising also between the ages of twelve and twenty may be followed by serious consequences; but after the age of twenty, if recovery from the acute attack takes place, it is only in very exceptional cases that any ill-effects subsequently follow.

With regard to other forms of pericarditis, whether occurring in childhood or adult life, complete recovery is the rule, and any curtailment of life which can be attributed to adhesion of the pericardium is the exception. In adult life one of the rarest morbid conditions to be seen on the *post-mortem* table is adhesion of the pericardium which has occasioned cardiac failure.

In the above paper there are many other statements upon which comment could be made, but it is much more easy to criticise than to furnish guiding principles. The subjects of the diagnosis of pericardial effusion or of general adhesion of the pericardium, with which the paper largely deals, are of great difficulty. This paper summarises the various physical signs which are thought to provide means for diagnosis, but it cannot be said that it adds anything to our present knowledge. The paper has been referred to because it lies between two others that afford, perhaps, more practical points for consideration.

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The article[1] which precedes it deals with **pyo-pericarditis** The writers upon this subject lay stress upon the well-known fact, apt sometimes to be forgotten, that purulent pericarditis is a frequent complication of pneumonia. They mention also what is also well known, but is perhaps not so important, that it is associated with local and general septic conditions. These writers consider that with the onset of pericarditis the temperature in pneumonia is likely to be lowered rather than raised above its former level, that pain over the heart is frequently present, and that suspicion of the presence of pericarditis should always be aroused when the dyspnœa is greater than the physical signs in the lungs would suggest. It is needless, however, to remark that sero-fibrinous pericarditis is considerably more common in pneumonia than the purulent variety, and that only in a small number of this variety is the effusion present in sufficient quantity to justify surgical interference.

[1] Scott and Le Conte, *Ibid.*, p. 447.

The presence of this effusion is detected by careful percussion. Three cases of pericarditis associated with pneumonia are reported by these writers, and another of septic origin, in which the pericardium was aspirated, but the methods of surgical procedure perhaps need not be referred to until other papers upon this subject have been briefly noticed.

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A paper upon[1] **paracentesis of two cases of pericarditis** follows that of Dr. Riesman, under whose care both of the patients were. These cases illustrate well the difficulty of diagnosis of moderate degrees of pericardial effusion. They were both under the care of a physician interested in this subject, as his paper, which deals fully with the signs of pericardial effusion shows, yet Dr. Roberts, who was called in to aspirate and record the cases, obtained only three ounces of fluid in one case and none at all in the other. In this case the absence of fluid was proved *post mortem*. Two cases are, however, recorded by Thayer[2], where the diagnosis was far less difficult on account of the large amount of effusion present. Both cases were in male adults—one aged 26 and the other aged 56. In both the effusion was tuberculous. The præcordial dulness in the first case extended from the first rib above outwards to the nipple line on the right side and on the left to the posterior axillary fold. The heart-sounds were almost absent, and when they could be heard best "so extremely feeble and distant that nothing definite could be determined as to their character." Here in passing it may be remarked that in a case I saw, where pericardial effusion was so great that it was thought to be fluid in the left pleural cavity, and only found to be in the pericardium after death, the heart-sounds were unusually sharp and loud, so loud in fact that their peculiar intensity was commented upon in the clinical record. But to return to the case recorded by Thayer, the decision was arrived at that aspiration should be performed and 1,250 c.c. of clear fluid were withdrawn. In the second case, although the area of dulness was large the aspiration failed to withdraw fluid. After death, however, 1,200 c.c. of fluid were found in the pericardium. Although the heart was not fixed by adhesions it lay in front of the effusion, and the aspirating needle had come into contact with the heart-wall. A case of some interest in this connection is recorded by Dabert.[3] Aspiration of the pericardium was attempted in a lad aged 17. When lying in bed no fluid could be obtained, but when raised to the sitting posture 10½ ounces were withdrawn. When the patient was recumbent the heart could be felt in contact with the needle. This was a case of rheumatic pericarditis, and the patient, although considered in an almost

[1] J. B. Roberts, *Ibid.*, p. 473. [2] *Johns Hopkins Hosp. Bull.*, 1904, xv. 149.
[3] *Berl. klin. Wchnschr.*, quoted in *Med. Rev.*, 1905, viii. 31.

hopeless condition when the paracentesis was performed, recovered.

If recovery can be attributed to the withdrawal of comparatively so small a quantity of fluid, it does not seem probable that the removal of pressure is mainly responsible for the relief of the heart. It is more probable that the removal of deleterious toxins is the main beneficial factor. At least, it is remarkable how rapidly the pericardium will yield under pressure. Thayer refers to recorded cases in which $4\frac{1}{2}$ lb. and $5\frac{1}{2}$ lb. of blood have been removed from the pericardium in cases of scurvy with termination in recovery. It may be mentioned in passing that this distensibility of the pericardium, under circumstances apart from that of acute pericardial inflammation, shows the fallacy of the view which attributes enlargement of the heart after rheumatic pericarditis to failure of the weakened pericardium to support the heart. Besides, curiously enough, in the most acute forms of pericarditis, suppurative pericarditis, where it would be expected that the pericardium should yield most readily, there is no dilatation of the heart. This, however, is wandering from the subject, yet it is well to bear in mind that although dilatation of the heart in rheumatic pericarditis cannot, it seems to me, be attributed to weakening of the pericardium, the presence of such dilatation of the heart in pericarditis from the point of view of diagnosis is important. The dilatation may be very rapid in cases of rheumatic pericarditis, and in the great majority of instances where fluid in considerable quantity is thought to be present there is virtually nothing but very marked dilatation of the heart.

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A brief reference to **methods of procedure in paracentesis of the pericardium** is necessary. Difference of opinion has existed as to which is the best site for puncture. The dangers to be avoided are: (1) infection of the pleura, (2) injury to the internal mammary vessels, (3) puncture of the heart. Apparently wherever a puncture is made it is almost impossible to avoid wounding the pleura, so that after considering various points in connection with the above, Thayer comes to the conclusion that the sixth space about the mamillary line is the best spot for exploratory puncture or aspiration, provided there is no evidence that the heart extends so far out. Should the apex reach that point, then it will be necessary to explore further to the left. Roberts, in the above-mentioned cases, appears to have chosen this spot. Scott and Le Conte, speaking of incision of the pericardium for purulent pericarditis, select the fourth left interspace, beginning one inch from the sternal border and extending to the normal position of the apex-beat of the heart. Pendlebury,[1] however, advises a

[1] *Lancet*, 1904, ii. 1145.

vertical incision apparently not far from the left border of the sternum, but the exact situation in his paper is not given, although other details of two cases operated upon are described. In one portions of the sixth and seventh costal cartilages were removed, and in another a portion of the seventh cartilage.

THEODORE FISHER.

SURGERY.

The treatment of wounds of the thoracic duct has recently been discussed by Erwin von Graff.[1] The paper is based on one case of the author's and the records of twenty-six cases collected from literature. In each case the duct was injured during an operation on the left side of the neck for the removal of malignant or tubercular lymphatic glands or of a malignant goitre. The author's case, operated upon by Prof. von Eiselsberg, was a child of 13. During the removal of tubercular glands near the left clavicle a large lymph-vessel was injured, probably the thoracic duct, and a free discharge of milky-white lymph occurred. The lymphatic vessel was ligatured, and the after course of the case was in no way prejudicially influenced by the accident or the treatment adopted. This case and a few others which have been treated in the same way, with equally good results, show that accidental injury of the thoracic duct need cause no grave anxiety. But in the great majority of cases the duct has not been ligatured; instead the wound has been packed, or no special treatment has been adopted. In these cases the flow of chyle generally continued for a long time, and injured the general health of the patients more or less severely. In two cases, those of Cheever and Schopf, death soon followed the operations. In the former of these the fatal termination was certainly not due to the loss of lymph, and in the other perhaps the loss of lymph should be regarded only as an important contributory cause of death. In all the other cases, even where the rapid loss of strength and great wasting of the patients gave rise to the gravest anxiety, there was a sudden change for the better as soon as the discharge of lymph ceased.

The absence of agreement with reference to the treatment of wounds of the thoracic duct can be explained in several ways. In the first place the injury is a rare one. The author's twenty-seven collected cases were published during a period of twenty-nine years, and in most of the scattered articles on the subject no definite conclusions, based upon the results of the various methods of treatment, have been drawn. Again, the accident often occurred at the end of a long and difficult operation, and the treatment by packing was chosen to save time;

[1] *Wien. klin. Wchnschr.*, 1905, xviii. 10.

also, by many, the ligature of the thoracic duct has been considered dangerous.

The fear of some authors that ligature of the thoracic duct might endanger life and lead to rupture of the distal end of the duct with the effusion of chyle in the chest or abdomen has been shown to be groundless by numerous experiments on animals and by anatomical researches in man. For example, it is known that the duct often opens into the innominate vein by many branches. Thus, in a case of Brinton's (Philadelphia), quoted by the writer, the thoracic duct in the upper part of the thorax divided into two branches, which again united with one another, forming a closed ring. From this ring three branches passed—one to the subclavian vein, another to the internal jugular, and a third passed first upwards and then obliquely to the left across the neck. It is obvious that there would have been no complete obstruction to the circulation of chyle by ligaturing one of the branches mentioned. Wendel[1] has specially investigated the collateral vessels communicating with the thoracic duct. He found that the duct gave off several branches at its upper end in 50 per cent. of the cases examined, and in two cases, by injecting the duct, he demonstrated the existence of small anastomotic communications between it and the azygos vein. Probably these collaterals, capable of dilatation, exist in all cases, so that the ligature of an unbranched thoracic duct in the neck will not prevent the flow of chyle into the venous system.

In sixteen of the twenty-seven cases of wounded thoracic duct collected by von Graff the treatment was by tamponade. In only three, or 9 per cent., of these cases was the treatment immediately successful. In the others the chylorrhœa continued for a time, and usually with injurious effects upon the patients' general health, and with great prolongation of the time required for the healing of the wound. In one case, for example, even three months after the operation, chyle was still being discharged from a fistula in the scar. In two of the thirteen cases in which chyle continued to escape in spite of the tamponade of the wound, no special change in the general health of the patients was noticed, though in one of them the quantity of chyle lost was large. In all the other cases severe disturbance of nutrition was produced by the loss of chyle.

To illustrate the clinical course of cases treated by tamponade the following examples may be cited:—Swinn, on changing the dressing on the tenth day in a case of excision of tubercular glands, noticed a tense elastic swelling immediately above the clavicle. Two days later, on removing the sutures, a great quantity of milky fluid escaped, which was proved by microscopical examination to be chyle. In spite of tight packing the fluid continued to escape, sometimes to the quantity of two

[1] *Deutsche Ztschr. f. Chir.*, xlviii., heft 5 and 6 (quoted by von Graff

litres in twenty-four hours. The patient quickly lost weight, and suffered from severe headache with a frequent, weak pulse and serious fainting fits. The opening of the thoracic duct was therefore sought for and occluded with a clamp forceps. The flow of chyle was thus stopped, and the patient quickly regained his strength. In Wendel's case it was only on the nineteenth day that the free flow of chyle was checked, though the wound had been repeatedly and firmly packed. By this time the patient had become extremely weak, but from the moment the discharge was stopped he began to recover quickly.

The course of the twelve cases of wounding of the thoracic duct treated by ligature, clamping, or suture was far better than that depicted above. These methods were used at the time of the injury in nine cases, and subsequently, when tamponade had proved insufficient, in three cases. Keen, Cushing and Porter have each sutured a rent in the duct successfully. In the remaining cases the flow of chyle was checked by ligation or clamping. In nine, or 75 per cent., of these cases the chylorrhœa was checked immediately.

In the cases treated exclusively and successfully by tamponade, the cessation of the discharge of chyle after a certain time is easily comprehensible. The pressure of the packing by obstructing the outflow of chyle leads to the dilatation of the collateral branches of the duct. Finally all, or nearly all, the chyle flows to the blood-vessels through these dilated branches. When this occurs the wounded duct heals by granulation, which it could not do when its edges were separated and bathed by the freely-escaping chyle.

Erwin von Graff draws the following conclusions from the above considerations:—

1. Chylorrhœa causes severe but usually transient disturbances of nutrition. These can, in conjunction with other injurious influences, such as the loss of blood and prolonged anæsthesia, lead to a fatal result.

2. The only procedure which yields immediate success in treatment is ligature or suture of the injured duct, and this should be performed either immediately or, if that is impossible, secondarily.

3. The ligature of the duct produces no injurious effects on the system.

4. Tamponade is the next best treatment, but should only be used when ligature or suture is impossible.

E. Deanesly [1] records a case in which he divided the thoracic duct in removing tubercular glands, and implanted its proximal end in the internal jugular vein. The vein had been previously ligatured and divided near the innominate, and again ligatured higher up in the anterior triangle. The thoracic duct was

[1] *Lancet*, 1903, ii. 1783.

grafted into the portion of the vein lying between the high and the low ligatures, after it had been proved that blood circulated in this part of the vein, probably from the establishment of collateral circulation through thyroid veins. The patient had no untoward symptoms of any kind. Charles R. Keyser[1] records a case in which, after an operation for the removal of carcinomatous glands from the supra-clavicular region on the left side, there was a copious discharge, amounting to several pints, of creamy fluid from the wound. The discharge continued for a fortnight, and then gradually ceased.

* * * *

The treatment of incontinence of urine. In 1903 Fernand Cathelin, of the Hôpital Necker, Paris, introduced a method of treating incontinence of urine by epidural injections. The injections are made into the lowest part of the sacral canal through the inverted **V**-shaped notch at the inferior and posterior border of that bone. For making the injections the patient is placed conveniently in the Sims' position with the knees drawn well up towards the chest. A clear description of the technique is given by Ferd. C. Valentine[2] and again by F. Dejardin.[3] The last perceptible sacral spinous process is made out with the left index and middle fingers which are then slightly separated and pushed downward until each rests upon an osseous tubercle. The skin is stretched with these fingers, and the needle passed in between them. The needle is first held at an angle of about 40° to the surface, but when its point is felt to have penetrated the posterior-inferior sacral obturating membrane the shaft of the needle is depressed about 20° and cautiously pushed up into the sacral canal. The fluid used by Valentine was decinormal salt solution, and that used by Dejardin a solution of bicarbonate of soda 1 % and sodium chloride 7 %. The injections are made slowly, 5 c.c. per minute, and from 5 to 20 c.c. of fluid used. Valentine reports the results in eight patients. All were inmates of the Manhattan Hospital West, and were of unsound mind and affected with enuresis or incontinence or both. In all gratifying results were obtained. Case 2 may be mentioned as an example. Before epidural injections the patient urinated into bed ten times nightly and into her garments six times daily. After the tenth injection she no longer wetted either her bed or clothing. The operation is not more painful than hypodermic injection. Generally there are no ill effects observable, but sometimes the patients feel a sense of pressure in the spine, others become dizzy, others have moderate pain along one or other sciatic region, and a few have had transient painless paraplegia. The longest time any of these effects lasted was about five minutes.

[1] *Lancet*, 1904, ii. 1215. [2] *Med. Rec.*, 1903, lxiv. 486.
[3] *Arch. prov. de Chir.*, 1904, xiii. 513

Valentine considers the following deductions warranted:—(1) That epidural injections offer the most promising results in abnormalities of urination due to faulty vesical innervation; (2) that incontinence of urine, enuresis, excessive frequency of micturition (unless due to other pathological conditions), can at least be ameliorated by the injections; (3) that they are in no wise dangerous; (4) that they are but slightly painful; (5) that the technique is simple; (6) that the immediate effects are very rarely even disagreeable.

Dejardin[1] fully reviews this subject, and reports six cases of ordinary incontinence in children he has treated with success by the method; also he has tried the method for the treatment of rectal prolapse with success. The action of these injections seems to be inhibitory, the shock produced at the level of the nerve roots being transmitted gradually to the centres themselves; in fact, a fracture of the sacrum may be associated with the same effects as epidural injections.

J. Lacy Firth.

LARYNGOLOGY AND RHINOLOGY.

Vincent's Angina.—Bacteriological investigation has added to the number of cases which must be diagnosed as diphtheria, but it has also served to differentiate conditions which clinically are hardly distinguishable from the milder forms of the more formidable disease. Of these one which is occasionally met with is the diphtheroid angina due to the fusiform and spiral bacilli of Vincent. Hess[2] states that (1) it is characterised by exudation on the tonsils, swelling of the glands in the neck, difficulty in swallowing, and fever, and has therefore a likeness to diphtheria, but runs a rapid and mild course; (2) it can be confounded with syphilis; (3) it is easily recognised by the bacteriological find; this consists in the most characteristic cases in a symbiosis of a bacillus and a spirillum. The clinical conditions are typical. On the first day one tonsil shows an easily detachable exudation, on the second day this membrane is found to rest on an ulcerated surface, and on the third and fourth days it becomes thicker and softer. In a few cases the membrane then becomes detached at its edges, and this is either coughed up or swallowed. The surface is slightly ulcerated. On it a new thin membrane forms, which is got rid of in the course of a few days. There is moderate fever and swelling of the cervical glands. These cases are termed "croupous," and only the fusiform bacillus is found. In the majority of cases the ulceration deepens under the membrane during the first four days. The pseudo-membrane is soft, grey, yellowish grey, or greenish in colour, and the surrounding tissue is reddened and œdematous. Swallowing becomes very

[1] *Loc. cit.*

[2] *Deutsche med. Wchnschr.*, Oct. 15th, 1903; *Brit. M. J.*, 1904, i. Epitome, p. 1.

difficult; there is much salivation, and there is fetor *ex ore*. As a rule the constitutional changes are mild in comparison with the local condition, but these may also be severe. After about eight or ten days the membrane becomes detached, and the ulcerated surface soon gets clean. Complete removal of symptoms and signs rapidly follows, though the course of the disease may be prolonged.

The b. fusiformis is from 6 μ to 12 μ long; it is pointed at the ends, bulging in the centre. They are often arranged in pairs or diplobacilli, or in bundles, radiating, or at an acute angle to one another, or irregularly. They form vacuoles and other degenerated forms, but not spores. They are not stained by Weigert's or Gram's stain, but by fuchsine or methylene blue. They have long flagellæ, one at each end and two on each side. The spirillum is long and thin, does not stain by Gram, and only slightly by fuchsin. There are no flagellæ. Hess regards both as saprophytes of the mouth.

Two cases of ulcerative angina due to these bacilli are reported by Fisher,[1] who gives illustrations of the micro-organisms. One was clinically gangrenous tonsillitis. He mentions that the duration of the affection as described by Vincent, Bernheim, and others, varies from ten days to six weeks, and that there is a tendency to spontaneous cure. He finds no evidence that the disease is communicated easily from one individual to another.

Tonsillitis, due to Suppurative Mammitis in Cows, has been the cause of some recorded epidemics of sore throat. Thus Pierce[2] and Kenwood[3] have given interesting accounts of such outbreaks, and still more recently French[4] has described an outbreak at Finchley. French found that the disease was generally ushered in with chilliness and *malaise* about twenty-four hours after infection, and the throat felt sore. Its appearance was generally one of follicular tonsillitis or commencing quinsy. In no cases did any patches resemble diphtheria. In one or two instances the throat seemed to have escaped, and the infected milk produced an intense attack of diarrhœa. As the throat grew worse the glands of the neck became enlarged and matted together, and felt very hard and very painful. In rare instances suppuration occurred, but this was not the rule. At the same time the temperature rose to 103° or thereabouts. Neuralgia was a common symptom, and no nerve seemed exempt. One patient suffered from very acute neuralgia of the ophthalmic division of the fifth left cranial nerve, followed by herpes of those parts supplied by it. This was one of the cases complicated with erysipelas as hereinafter described. Other complications arose, such as œdematous swellings of the limbs, swellings of the

[1] *Am. J. M. Sc.*, 1903, cxxvi. 438.
[2] *Brit. M. J.*, 1903, ii. 1492. [3] *Ibid.*, 1904, i. 602. [4] *Ibid.*, p. 831.

joints resembling rheumatism, and occasionally erysipelas of the face and head, and a rash resembling measles on other cutaneous parts. A fatal termination was rare, and was generally due to some complication. In one instance in this epidemic cerebral intoxication producing Bell's mania proved fatal. A recrudescence of the symptoms was a very common factor.

Follicular tonsillitis, enlargement of the glands of the neck, and all other symptoms caused by this infected milk were not at all amenable to the usual remedies, and it was not until French used the anti-streptococcus serum (B. W. and Co.) that he noticed all symptoms abate, as well as the erysipelas.

With the same treatment in other severe cases the disease began to abate immediately, the temperature fell to normal within twelve hours, and the patients made rapid progress towards recovery. This treatment suggested that the cause of the disease was undoubtedly the streptococcus mammitis bovi, and Easte's bacteriological investigations bore out French's view, that the disease was that of "an erysipelatous infection."

It is contracted either by drinking the infected milk, or by contact with an infected patient.

Treatment of Nasal Septal Deviations by Submucous Resection.—Without entering into the relative merits of the numerous methods of correcting septal deviations and spurs, such as the Asche operation, the use of trephines, drills, electrolysis, &c., the excellent results following submucous resection deserve careful consideration in cases for which this somewhat recently practised method is suited. Cohn[1] considers that cases of displacement of the whole or greater part of the septum itself from the median line in the course of either the sagittal or horizontal axis, or in both planes, are peculiarly suitable for this method of operative treatment. Cohn's experience with the submucous resection dates from 1888, and he reminds us that it is really to Krieg, of Stuttgart, that the credit belongs of having most systematically described the method in 1886, though it had been recommended by Hartmann in 1883. Thus the method is not novel; but it is not generally known as a well-tried procedure, hence the remarks of one who has had a large experience in submucous resection are exceedingly valuable, and are quoted at length. In the earlier cases the operation was usually performed under general anæsthesia. Later on, since the introduction of adrenalin, a combination of a weak cocaine solution and adrenalin has usually sufficed in most cases. Instead of employing the sitting posture, as recommended by Krieg, Cohn usually places the patient on the table on his back with the head slightly raised and the chin depressed, the head slightly turned away from the deviated side. The

[1] *Med. Rec.*, 1903, lxiv. 1013.

nostrils being held back by retractors, an incision slightly convex is made through the whole length of the mucous membrane as near to the point of greatest convexity as possible and only through the mucous membrane. Care in not cutting through the cartilage at the first incision is of value in enabling a more rapid separation of the mucous membrane from the cartilage. The mucous membrane is then held back by a small sharp hook, and the cartilage, after being exposed as far as possible, is nicked and then gradually separated from the mucous membrane on the other side. After the cartilage has been freed as far as possible, especial attention being paid not to dislocate it, an incision above is made parallel to the ridge of the nose in order to prevent an external deformity, a second incision made below, and the cartilage finally dissected out posteriorly; the first piece removed usually embraces the greater portion of the protuberant cartilage. The still protruding pieces must be removed piece by piece, working from before backward, and, if necessary, even removing the bony portion with a small bone forceps. An occasional revision and replacing of the mucous membrane is the best guide as to the amount which must be removed. In suitable cases, with large noses and anterior deviations, the operation may be finished rapidly, in some cases twenty minutes sufficing for the whole operation; in more difficult cases the operation may take as long as two to two and a half hours. After the cartilage has been removed the mucous membrane is carefully replaced; if it has been torn and forms a flap, one or two sutures may be added to keep it in place. The nares are then lightly packed with gauze and the patient kept in bed for a day or two. Ice applications over the nose and change of dressing every twenty-four hours for two or three days is usually the only treatment required. After that the patient may be discharged, no further *after-treatment* being necessary except the use of an ointment or an oil spray to prevent formation of crusts until the mucous membrane has regained its normal condition.

P. WATSON WILLIAMS.

Reviews of Books.

Landmarks and Surface Markings of the Human Body. By LOUIS BATHE RAWLING, M.B., B.C. Cantab., F.R.C.S. Pp. vi., 76. London: H. K. Lewis. 1904.

This book, as it supplies a want in the series of text-books, will be greatly appreciated not only by the student before examination, but by the busy practitioner and operator after-

wards. It presents what in our opinion Holden's landmarks lacked, and that is illustrations and diagrams, and the illustrations are especially clear and explanatory, each picture being furnished with a list on the same page of the various structures depicted, distinctly indicated by a number. This arrangement, apart from the text, makes the work of considerable value to anyone who wishes to refresh his memory as to the exact geography of a part with which he has to deal, and who has not the time to consult larger works on anatomy.

A part of the book that we think will be found useful is the appendix, which gives the length of various mucous passages and other organs; but we missed what we first looked for, namely the average length of the alimentary canal from the incisors to the cardiac opening in the stomach. It would perhaps be the author's pleasure to add this in his second edition.

Arhythmia of the Heart. By Dr. K. F. WENCKEBACH. Translated by THOS. SNOWBALL, M.A., M.B. Pp. ix., 198. Edinburgh: William Green & Sons. 1904.

This is a very scientific work on irregularity of the heart. Commencing with a survey of the more recent views upon cardiac action, it later shows how clinical abnormalities of the rhythm of the action of the heart can be interpreted in the light of experimental research.

The writer first lays stress upon the intrinsic power of contraction of the heart—*i.e.* its myogenic action—and shows how the action can be altered by changes in stimulus production, excitability, stimulus conduction through the walls of the heart, and contractility.

The most common condition present in irregularity of the heart is the presence of what are known as "extra-systoles." These added systoles occur at varying lengths of time before the time at which the next normal systole should have occurred, and are followed by a pause longer than the ordinary diastole, a pause sufficiently long to bring the next normal systole into the place, so to speak, that it would have occupied if no extra-systole had occurred. In the simplest form of irregularity of the heart—*i.e.* an occasional intermission—this intermission is due to the occurrence of this extra-systole and the pause which follows it. On auscultating the heart, we are all familiar with the loud first sound which precedes the pause of an intermission and with the early occurrence of this loud first sound after the first sound which had gone before. The loud first sound is the sound which occurs during the extra-systole.

Into all the various questions of interest which are concerned in irregularity of the heart we cannot here enter, but the part played by interference with stimulus conduction, by altered

excitability or contractility, are fully dealt with, as well as the part played by the nervous system in irregularities of the heart.

The writer more than once in his book mentions that questions concerning the action of the heart are not merely matters of scientific interest. He considers that much has still to be learnt, but that careful investigation and clinical observation, it is to be hoped, will enable us to ascertain accurately in any given case the cause of irregularity. Increased knowledge should not, however, aid diagnosis and prognosis only, but pharmacology in connection with various forms of cardiac irregularity needs also to be studied both experimentally and clinically.

Hypnotism: its History, Practice, and Theory. By J. MILNE BRAMWELL, M.B., C.M. Pp. xiv., 478. London: Grant Richards. 1903.

This book can be well recommended to all those interested in hypnotism, whether from the medical or purely scientific standpoint. The subject is treated in an unbiased spirit throughout, and there is no attempt made to force the claims of hypnotism as a curative agent. The work opens with a concise historical survey of the work of the earlier investigators and of the later French schools, with a description of their methods.

There is a very interesting section on the experimental phenomena of hypnotism, in which the post-hypnotic phases receive especial notice; the case of time-appreciation is, with the author's discussion of it, worthy of careful perusal. Dr. Bramwell's views on the therapeutic value of hypnotism in medicine and surgery are given with judicial impartiality. He claims that a good percentage of cures can be obtained in cases of hysteria, obsessions and imperative ideas, and neuralgias. Its use as an anæsthetic is limited; profound anæsthesia is only obtainable in a few of even susceptible patients. The various methods of inducing and terminating hypnosis are reviewed; the author mainly relies upon procuring an expectant attention in the patient and then on suggestion, sometimes using suggestion for the hypnosis and the treatment simultaneously. The use of mechanical aids is not favoured by him. Dr. Bramwell denies that the easy production of hypnosis is any indication of mental feebleness, as has been popularly supposed; rather concentration of mind is requisite in considerable degree. Nor does he admit the likelihood of a post-hypnotic subserviency of subject to operator of a general kind, or in especial any tendency to adopt criminal suggestion. We gather that hypnotism has never been attended with any ill results in the author's practice, and that far from impairing volition it is productive of increased control.

Le Ventre. Par Dr. M. BOURCART et Dr. F. CAUTRU. I.—*Le Rein.* Pp. viii., 302. Geneva: H. Kündig. 1904.

This work consists of two parts: the first, devoted to a critical survey of the external form of the abdomen, back and trunk, and the manipulations for palpation of the various organs; the second deals with mobile or wandering kidney. The former is well illustrated in continental style, and, in particular, the effect of the corset upon the form of the trunk and abdomen is clearly demonstrated. In the second section many of the illustrations are reproduced, and the various possible causes of mobile kidney are considered. Especial importance is attached to an insufficiency of the organism "anatomo-physiologique," to defective intra-abdominal equilibrium, and to flattening of the paravertebral renal recesses. The treatment advocated for wandering kidney comprises constitutional measures, corrections of faulty dress and deportment, and, in particular, abdominal massage, the methods of employing this being fully described and illustrated. The anatomical researches are sound and the book scientific, but it chiefly deals with massage as applied to the treatment of nephroptosis and enteroptosis in general.

Ophthalmological Anatomy, with some Illustrative Cases. By J. HERBERT FISHER, M.B., B.S. Lond., F.R.C.S. Pp. viii., 188. London: Hodder & Stoughton. 1904.

The author states in his preface that this book has been written with the object of supplying to those engaged in ophthalmic practice a concise account in convenient form of the anatomy of the organs of vision. He has also included a number of cases illustrative of the ocular symptoms that occur in various diseases of the nervous system, in lesions of the oculo-motor nerves, in cellulitis of the orbit, and in septic thrombosis of the cavernous sinus, and these cases constitute nearly one-half of the work. They are well described and selected, and should be read with the corresponding part of the anatomical section of the book. This is especially necessary in the case of the cervical sympathetic, for we are left to infer the symptoms of a lesion here or to work them out from the cases given.

The author has not confined himself to descriptive anatomy, but quite rightly has also dealt with the functions of the structures with which he is concerned. In some of his descriptions of the anatomy of nerve centres and the course of fibres the matter is left too open—for instance, in the case of the course of the different fibres for reflex contraction of the pupils—whilst in others the statements are rather too dogmatic for the known facts. These small blemishes might easily be corrected in the

next edition. We think that one or two more figures would be of advantage in helping the reader to understand the course of the fibres from the optic tracts to the cortex, the description of which is difficult. The account of the visual word centres and visual memory is too short, and requires to be considerably expanded to give it the value which we expect it to have in a special treatise of this kind.

The author does not accept the current view as to the function of the capsule of Tenon, but regards "the globe and capsule as moving harmoniously together upon the retro-ocular tissues—*i.e.* the fat packing the orbit"—and with respect to the movements of the eyeballs, he brings forward good evidence in favour of the "combined action of every extra-ocular muscle in effecting even the most simple movement."

On the whole the book is a good one, and will be useful for the purpose for which it was written; with some additions it might be made still better. In conclusion, one must commend the excellence of the type, the lightness of the volume, and last, but not least in a work of this kind, the full index.

Meals Medicinal: with "Herbal Simples." Curative Foods from the Cook; in place of Drugs from the Chemist. By W. T. FERNIE, M.D. Pp. xxii., 781. Bristol: John Wright & Co. 1905.

The author of *Herbal Simples* writes this larger work for the purpose of instructing readers how to choose meats and drinks which can afford precisely the same remedial elements for effecting cures as medicinal drugs have hitherto been relied on to bring about. The mênu provides a complete dispensatory of remedial diet applicable to the treatment throughout of most diseases and ailments. Its *modus medendi* is made lucid and plain. Many are the digressions which give sunshine and life to the subject; much dexterity has been shown in the management and good cooking of these. The book is dedicated "to our 'Little Marys,' with the homage of a lifetime spent in their service"; it is full of information so well served that it is everywhere appetising and easily digested. "Take therefore, gentle readers, in good part what's projected for thee: so shall our pains not quite want their recompense; nor thyselves be branded with the base mark of ingratitude."

The Chief Operations of Ophthalmic Surgery. By HAROLD B. GRIMSDALE, M.B., F.R.C.S. Pp. iv., 144. London: *The Medical Times*, Limited. 1904.

This little book is what it professes to be, namely a practical guide to students of ophthalmology who are intending to under-

take the responsibility of operating in this speciality. There is an old saying, perhaps somewhat coarse, that before a surgeon becomes a successful ophthalmic operator he will have probably had a hat-ful of failures, and it is our opinion that careful study of Mr. Grimsdale's book may help to prevent such a calamity. The author does not claim for his work that it is a history of the art. It is essentially a practical guide, and consists of a series of lectures given in connection with his work at the Royal Westminster Ophthalmic Hospital, in which he describes and explains the various operations and enumerates the necessary instruments and arranges the stages of the operations in a way that is concise and clear. To house-surgeons who often get a chance of operating under the guidance of their principals—and we here may go out of our way to recommend them to take every chance of doing so—we recommend the book as likely to be of great use.

The author is in the habit of using for demonstration pigs' heads for operation on the lids and muscles, and pigs' eyes held in a special machine for operation on the globe. This plan may fix in the mind of the student the plan of the procedure, but, as the author points out, the touch of the living eye and the elasticity of the living tissues render the real operation a very different thing.

There are a few grammatical errors, and the work does not claim to be complete, but a future edition, with a preliminary page of contents and more diagrams, and these a little more elaborate, will be welcomed.

Malignant Disease of the Larynx. By PHILIP R. W. DE SANTI. F.R.C.S. Pp. i., 107. London: Baillière, Tindall & Cox. 1904.

One of the main objects of this book is to place before the profession the views held in England as to the correct operative treatment of laryngeal cancer—views which have not so far been sufficiently understood or appreciated abroad. There is no room for doubting that the author has been successful in carrying out this object, and we have in a very readable form one of the most succinct yet complete and reliable summaries of the position of British surgery in regard to laryngeal cancer. The earlier sections, dealing with etiology and pathological anatomy, are good, the former because it is so freely confessed that the etiology is unknown, and various unsupported hypotheses are not put forward as probable causes; the latter because it has been the subject of careful investigation by the author himself. The sections dealing with diagnosis and the indications for various operative measures are accurate, and fully represent the best thoughts of the most expert operators in this department of surgery.

A Short Essay on Insanity. By CHARLES WILLIAMS. Pp. 22. London: H. J. Glaisher. 1905.

This elementary essay may be welcomed as one more effort to bring into prominence the importance of recognising the earliest symptoms of insanity. The author has treated the subject from a popular point of view, and in a simple, clear manner which can be readily understood by the unlearned in medical matters; and it is chiefly by the education of the public mind in this respect that the goal—viz. the warding off the approach of insanity—is to be attained, for it does not generally happen that a patient comes under medical care until the premonitory (and most curable) stage is passed, though even if such a "borderland" case does come under medical observation, the course is not so easy as the author implies. He says, "He or she should be at once placed under care and treatment." But alas! he or she may not be—and generally is not—willing, and however desirable such compulsory care and treatment may be, it has not as yet been proved sufficiently so to the authorities.

In a later stage, when actual delusion is present, we read (Part II.) of "the supreme importance of eradicating, or at least attempting to eradicate, a delusion at its first inception," and "the delusion at this stage may often be successfully removed." This sounds somewhat optimistic, and brings to mind many attempts to "eradicate delusion by reasonable argument" with as many failures, but possibly these failures prove conclusively the necessity for further efforts such as the essay advocates.

Notes on the Composition of Scientific Papers. By T. CLIFFORD ALLBUTT, M.D., F.R.S. Pp. ix., 154. London: Macmillan & Co., Limited. 1904.

In the course of each year Professor Clifford Allbutt reads eighty to a hundred theses for the degrees of M.B. and M.D. Cambridge. He finds the greater number of these are badly composed. The composition is not merely inelegant, but such as "to obscure, to perplex, and even to hide or travesty the sense itself." In the little book before us the commoner errors and defects observed in such essays are discussed by the author in the hope of bringing about some reformation in composition for the future.

In the first or introductory chapter the difficulty of acquiring the art of writing well is appropriately emphasised. Even the greatest writers, it is pointed out, acquired their skill only after much laborious striving. The methods of composition are next dealt with, and here the manner of beginning and ending an essay, the selection of a title, the importance of summaries, the

proper use of references, and the faults of eccentricity and finery in style receive due consideration.

In the remaining part of the book numerous examples of faults and errors in composition, taken largely from the theses mentioned above, are criticised and corrected. Counsel is given upon the choice and order of words, the avoidance of tautology and redundancy, the expression of emphasis, and the use of metaphors, quotations, and punctuation.

We cordially recommend this volume to the attention of all those writers of English who are not already masters of the art of writing the language correctly, lucidly, and gracefully, and we are sorry to have to admit that most of the scientific writing of the day is sadly deficient in these qualities. The great merits of the author's own composition as exhibited in these pages will be appreciated by all readers, and should promote the purposes he has had in view no less effectively than the precepts and examples he gives.

Transactions of the Medical Society of the State of New York. 1904.—This volume, of over 500 pages, contains a large number of original communications, which ought to be very stimulating and cheerful in their effects, inasmuch as the most important of them are grouped together under the term "Symposium." This fashionable American term is applied to any one of the following descriptions given by Ogilvie's *Imperial Dictionary:* a drinking party, a drinking together, a merry feast, a convivial meeting. The one connecting link is the Greek word *pino*, to drink. The subject of the first series of papers is appropriate, viz. Diabetes. Five papers on Diabetes, on the pathology, the physiological chemistry, the medical treatment, the general management, and the occurrence of Diabetic and Non-diabetic Glycosuria in the same individual, form a very instructive group of papers, which produce a kind of polydipsia for more. But here the series terminates, and is merged into another symposium—this time a series of three papers on Nephritis. a condition in which, according to Van Noorden, the fluids should be strictly limited. Other symposia follow: two papers on Abdominal Pain, five on Typhoid Fever, and four on the Roentgen Ray. This method of grouping papers on the same subject is excellent; but why should they be all associated with a term implying thirst and conviviality? Many other excellent papers are not so designated, and are worthy of careful study.

Studies from the Rockefeller Institute for Medical Research. Reprints. Vol. I. 1904.—This book consists of a series of reprints of papers which have mostly appeared in other journals, and are here collected into a single volume. They owe their origin to the fact that, pending the complete organisation of the Rockefeller Institute for Medical Research, the directors of the institute made a series of grants to workers

in various laboratories in the United States. According to the original intention of the founder of the institute, these papers consist of original researches into the causes and treatment of disease. They are mostly on bacteriological subjects. Attention may be directed to the series of articles on the bacteriology of acute dysentery, the relation of the dysentery bacillus to infantile diarrhœa, and the possibility of a serum-therapy against dysentery. There are also several papers dealing with the actions of adrenalin, both on the vessels and on the pancreas. All the contributions attain a high level, and as they all embody original research on subjects in which advance is being made in medicine, they deserve careful study. Reprints. Vol. II. 1904.—This interesting collection of papers on various subjects gives an excellent impression of the valuable work done by the Fellows of the Rockefeller Institute in the United States, Canada, and Germany. Fully one-third of the volume is devoted to the elaborate researches into the diarrhœal diseases of infants conducted under the direction of Drs. Holt and Flexner. Under them a large group of workers have investigated the clinical and bacteriological problems connected with "summer diarrhœa" in a systematic manner, the conclusions arrived at being set forth in two lucid and masterly papers by the directors of the scheme. In order to afford critics full data as to the observations on which these conclusions are based the reports of the various workers are printed *in extenso*. The Flexner type of the dysentery bacillus which closely resembles that isolated by Shiga in Japan, was proved to be the causal agent in many cases of "summer diarrhœa" in infants occurring in the eastern cities of the United States. That this bacillus is widely distributed has been shown by the researches of Kruse in Germany and Eyre in England, but whether the "summer diarrhœa" of infants in this country is caused by it either wholly or in part has not been determined. Serum treatment did not give in America any very startling results; this no doubt is due to the fact that the disease is not wholly due to toxæmia, as Dr. Holt points out, many of the symptoms being due to local disturbances of the digestive tract. In a supplementary paper by Dr. Martha Wollstein the dysentery bacillus was shown to be but rarely present in the discharges of children not suffering from disease of gastro-intestinal origin. Drs. Park and Holt's paper upon the results of feeding infants on different kinds of pure and impure milk, which is now familiar to all interested in the diseases of children, is reprinted in this volume. Their conclusions are too well known to call for fresh comment, and are as interesting from the point of view of sociology and public health as from that of pure bacteriology. From the latter standpoint there are several papers of interest among the reprints. Ford writes on the human intestinal flora in great detail; a paper by Wolbach and Ernst on the morphology of the tubercle bacillus is of interest in connection

with Marmorek's recently-described experiments, while Perkins, in a carefully-described series of observations, suggests a method of classification for the group of bacteria represented by the bacillus mucosus capsulatus. The other contributions are: Preston Keyes on the isolation of lecithins of snake poison (cobra venom); Sweet on the hæmolytic, bacteriolytic, and bactericidal reactions of the blood of animals in which artificial glycosuria and diabetes mellitus had been produced; Ehrlich and Marshall on the complementophil groups of amboceptors; Novy and McNeal on the cultivation of the trypanosoma of the Tsetse fly disease; and Opie on the relation of eosinophile cells to nutrition—an exhaustive review and investigation which has already appeared in the American *Journal of Medical Research*.

The Student's Handbook of Surgical Operations. By Sir FREDERICK TREVES, Bart., K.C.V.O., C.B. New Edition. Revised by the Author and JONATHAN HUTCHINSON, Jun. Pp. xii., 486. London: Cassell and Co. Limited. 1904.—The second edition of this book is an outcome of a revised edition of the larger manual by the same authors recently published. As it is abridged from this, the alterations are naturally the same in the two works. These concern chiefly the chapters on abdominal surgery, which are now very much out of date in the old edition. Specially may be noted amplified accounts of intestinal suture, operations on the stomach, on the gall bladder and ducts, and a very much more detailed description of the radical cure of hernia. For some reason no mention is made of hysterectomy, which is rather a pity, as otherwise the book is wonderfully full for its size. It has not been increased in size by the alterations and additions, and still remains a *multum in parvo* of operative surgery.

Handbook of Diseases of the Ear. By RICHARD LAKE. Second Edition. Pp. x., 242. London: Baillière, Tindall & Cox. 1904.—The early appearance of a second edition of this work testifies to its popularity. With the addition of only ten pages several improvements have been made over the last edition, and many printers' errors and ambiguous sentences have been corrected. A section has been devoted to the treatment of chronic suppuration in the middle ear apart from that of its complications, which somehow had been omitted in the first edition, and three pages have been added to the short chapter on diseases of the internal ear. It is the best book of its size published in this country on diseases of the ear.

Cancer: Its Causation and Curability without Operation. By ROBERT BELL, M.D. Pp. viii., 271. London: Baillière, Tindall & Cox. 1903.—Dr. Bell claims that by purely medical means he is able to cure cancer, and he says "it (*i.e.* cancer) only *appears* to have no remedy to those who have not attempted to employ the remedies which I know exist." The remedies referred to are chiefly extracts of the thyroid and mammary

glands. A few instances of cures are quoted, and in some of these cases curetting of the affected uterus was performed as a preliminary measure, but unfortunately the microscopic reports have been omitted, and as far as we are able to gather, in not a single instance where success is claimed was the diagnosis of cancer confirmed by pathological methods! The arguments are incomplete and far from convincing, and the language in which they are couched is poor and in many places ungrammatical.

Golden Rules of Anæsthesia. By R. J. PROBYN-WILLIAMS, M.D. Pp. 67. Bristol: John Wright & Co. [N.D.].—Dr. Probyn-Williams has made a clever selection of the most important facts to be borne in mind by administrators of anæsthetics. Students will find this book a great help as a guide to them while acquiring a practical knowledge of the subject. We notice one mistake which has evidently been overlooked. On page 44 the dose of ethyl chloride, as a substitute for gas before ether, is given as "three or four minims" instead of "three or four cubic centimetres."

Medical Officer of Health, Annual Report of, for the City and County of Bristol. 1903.—This report needs little comment, as it is for the most part the detailed account of which we gave an abridged abstract in a paper by the Medical Officer of Health in March last (*vide* page 55). The report is printed by order of the Health Committee, and it gives a very full account of all matters of interest relating to the sickness and mortality of the year 1903. We observe that the Council has approved of the initiation of a voluntary system of notification of phthisis, but that the arrangements for carrying out the scheme are not yet completed. The distribution of leaflets throughout the city has been undertaken by the members of the St. John Ambulance Brigade, who will also provide Dettweiler's sputum flasks, free of cost, to consumptive patients who are unable to afford to buy them.

The Journal of the Röntgen Society. Vol. I., No. 1. Printed for the Röntgen Society by Wertheimer, Lea & Co., Finsbury, E.C.—We congratulate the Röntgen Society on at length possessing a journal of its own. The new journal is of a most convenient size, well printed, and the illustrations far above the average; in fact, the reproduction of the photograph of Professor Silvanus Thompson, the first President of the Society, which is appropriately placed at the commencement of the volume, is quite a work of art. If the succeeding numbers of the journal fulfil the promise of the first, the *Journal of the Röntgen Society* will be a notable addition to our periodical literature.

Notes on Assouan, Egypt. By G. DUNDAS EDWARDS, M.A. Pp. 36. London: John Bale, Sons & Danielsson. 1904.—Any intending travellers to Egypt would do well to peruse this

booklet of thirty-six pages. Although few go so far from Cairo, the attractions described by Mr. Edwards may induce visitors to extend their travels towards the south, in order that they may enjoy the absolutely uncontaminated and dry air of the Libyan desert. Assouan is situated three miles north of the famous dam, about 580 miles from Cairo. It can be reached by train in about twenty-three hours, but the voyage up the Nile by tourist boat is certainly the more agreeable route. The features of the climate are: (1) the purity of the air; (2) the large amount of sunshine; (3) the warmth; (4) the dryness of the air. The aseptic air of the desert appears to have a peculiarly beneficial action on inflamed mucous membranes, and we learn that a man cannot drink the same amount of whisky in Khartoum that he does in Glasgow. This rule applies equally to drugs, as the same dose of strychnine or arsenic has not the same effect in all climates. We shall look to Mr. Edwards to give us some further investigations on these interesting questions. He tells us that camel-riding is the most terrible form of exercise ever invented.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Second series. Vol. IX.: L—Lyuri. Pp. 872. Washington: Government Printing Office. 1904.—This volume includes 8,706 author-titles, 5,322 subject-titles of separate books and pamphlets, and 31,481 titles of articles in periodicals. The labour of the editors must be great, but they have the satisfaction of knowing that their monumental work is absolutely indispensable to any well-equipped medical library.

The Diagnosis and Modern Treatment of Pulmonary Consumption. By ARTHUR LATHAM, M.D. Oxon. Second Edition. Pp. vii., 224. London: Baillière, Tindall and Cox. 1905.—The utility of this prize essay is shown by the fact that the first impression has been so soon exhausted. This second edition has been very slightly enlarged, and it has been improved by a few useful additions and amplifications. It continues to be one of the best of guides to sanatorium life and treatment.

The "Nauheim" Treatment of Chronic Diseases of the Heart. By LESLIE THORNE THORNE, M.D. Pp. 53. London: Baillière, Tindall and Cox. 1904.—This little book is designed to give those wishing to practice the Nauheim treatment in England some knowledge of how to prepare the baths, and the method of their use. An outline is also given of the character of the cases which the author considers suitable for the treatment, and also of those which are unsuitable. The book closes with a few illustrative cases.

Enlargement of the Prostate, its Treatment and Radical Cure. By C. MANSELL MOULLIN, M.D. Oxon., F.R.C.S. Third Edition. Pp. xi., 204. London: H. K. Lewis. 1904.—We have carefully perused this, the third edition, and have been impressed with the

consistent accuracy and judgment expressed throughout the book. The closing sections, dealing with the results of various methods of treatment, may be specially commended, although the value of the book might be enhanced by illustrations of the various methods of operation. The lack of illustrations is a defect in what is otherwise a well-written and practical work, and one that can be warmly recommended, even if it only be to disclose "the consequences that follow from the indiscriminate use of catheters."

The Case Against Anti-vivisection. By STEPHEN PAGET. Pp. 104. London: The Scientific Press, Ltd. 1904.—This is a valuable little book for anyone interested in the vivisection controversy. Apparently the first protests in England against cruel experiments were made in the medical journals—in the *Medical Times and Gazette* in 1858, in the *Lancet* in 1860, and in the *British Medical Journal* in 1861. This small book deals briefly with the literature and arguments of the anti-vivisection societies, and interesting examples are given of the character of their statements. For example, "the object of the sportsman is to kill, the object of the experimenter is to torture." Again, it is stated that vivisectionists support vivisection because it pays them to do so, presumably to prepare serums. There is "money in the business," says the leading anti-vivisectionist journal; "there is milk in the cocoa-nut, and twopence more and up goes the donkey." With regard to curare, which, according to an anti-vivisectionist writer, is "in daily use throughout England," Mr. Stephen Paget found that during 1903 it had been used at Oxford, Cambridge, and Edinburgh only twelve times, and in seven out of those twelve cases it was in pithed frogs. In the remaining five cases it is needless to say that the animals were under A.C.E. or ether.

A companion book, more valuable perhaps, and not less interesting, is *What we Owe to Experiments on Animals*. A brief survey is given of much that has been learnt in physiology, pathology, and pharmacology from experiments upon animals, and how much that is perhaps may not be realised until such a book, which puts the matter concisely before us, is read.

The Antiseptic. Vol. I., No. VIII. December, 1904. Madras. —This new exchange is a monthly journal of medicine and surgery, the first of its kind to be published in the Madras Presidency. It consists of nearly forty pages, many of the items being specially-contributed original articles. With these are some well-chosen cases of interest, leading articles, and reviews from contemporaries.

Editorial Notes.

University College Colston Society.

The sixth annual meeting of this Society was held on January 31st, 1905, in the large hall of the College, under the presidency of the Right Honourable Lewis Fry, who was supported by the vice-president (Mr. J. W. Arrowsmith), the Master of Trinity College, Cambridge (Canon H. M. Butler, D.D.), the Principal of Birmingham University (Sir Oliver Lodge, F.R.S.), the Lord Bishop of Bristol, the Lord Bishop of Hereford, and the Right Honourable Henry Hobhouse, M.P. Many speakers reverted to the long-discussed question of a University of Bristol, the chairman remarking that the existing system of education in the city could not be complete until a university linking all the existing institutions together and dominating the whole with intelligence had been established. The Bishop of Bristol remarked that it would be difficult to find two men who could better represent the old and the new in university ideals than the guests of the evening, the Master of the greatest of the colleges of the old universities and the Principal of what he might describe as the greatest of the new universities. Both of these had much to say on the subject of university extension. Sir Oliver Lodge spoke of the local university as an educational centre of influence to schools, technical institutes, and all sorts of educational organisations: it might be the educational head of a province. He thought it likely that provinces would revive in England, and that Bristol should be the capital of Wessex in a very real sense, and that its university should be the University for Wessex. He considered that a university should leaven the life of a city, and that a great city without its university was but an uncrowned queen. This was an ideal to be worked for by every lover of the higher education in the West, inasmuch as an institution which could give the stamp of accredited degrees to its alumni would raise the whole

intellectual status of the city, and would in time react on the civic life as well. The Master of Trinity College, Cambridge, spoke on the great value and importance of the College, and on the necessity for union between the two great branches of learning, science and literature. He further spoke on the much-vexed question of compulsory Greek, and, although a profound lover of the Greek language and literature, he was convinced that there are a great number of boys for whom the double burden of the two most difficult languages was too great. He believed in the value even of translations of the classics, and hoped that the library of the College might be richly stored with the best translations of Latin and Greek books, so that all students might be allowed the intense enjoyment and duty of saturating themselves through these translations with the thought, the life, the religion, the very genius of these two immortal languages.

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The Prevention of Apoplexy.

THE subject of Professor Clifford Allbutt's address to the Bristol Medico-Chirurgical Society on January 11th was one of great interest and of profound importance. The difficult task of the prevention of apoplexy was surveyed, and the whole subject of the association of arterio-sclerosis and high arterial pressure, with its measurement by the various forms of sphygmo-manometers, was reviewed. The causes of this condition, and the principles of its treatment by means of mercurials, salines, and iodides, formed the basis of an address (page 1), which we are pleased to publish *in extenso*, and which cannot fail to be instructive and profitable to our readers. The one weak point in the estimation of arterial pressure lies in the numerous fallacies which attach themselves to the clinical use of the instruments devised for the purpose, and until these can be more readily and accurately employed the physician will be likely to continue to attach more importance to the inferences to be drawn from information obtained by the fingers than to any observations recorded by the sphygmograph, arteriometer, or hæmodynamometer.

The alleged Abuse of Hospitals.

In a recent number (vol. xxii., p. 272) we directed attention to the subject of hospital administration, and published a paper by Miss Elizabeth Sturge on "The Misuse of Medical Charities." This perennial subject is ever cropping up anew, and now it has again come to the front by the allegations in the columns of the *Times*, made more particularly by Sir Henry Burdett, that the hospitality of the great medical charities is systematically abused. These statements have been supported by Mr. W. Roger Williams, of Clifton, who states that Bristol, with a population of 340,000, provides annually the large number of 140,000 with gratuitous medical relief. He estimates that some 40,000 persons in Bristol are annually in receipt of medical relief who cannot and ought not to plead poverty. He further states that if these undeserving crowds were eliminated the funds at present available for charitable medical purposes would be amply sufficient for all legitimate requirements. Probably there is little difference between the metropolitan and the provincial hospitals with regard to this matter. The tendency of mankind to get what they can for nothing is everywhere the same, and the difficulty in deciding who are eligible for gratuitous relief is also the same everywhere. The medical profession has been in the habit of giving the applicant the benefit of the doubt: he gets relief first, and an inquiry as to his circumstances is made a secondary matter. It is impossible to trust to appearances, as the most needy-looking is often the most undeserving, and the most tidy-looking are commonly those who are struggling the hardest. The statistics quoted are open to many fallacies, and the abuse is probably far less than it is made to appear on paper. The numbers are swelled largely by the crowd of what are called emergencies, many of these of the most trivial character, and which could be dealt with at very small cost by the local practitioners. Many other trivial cases apply with notes available for six weeks' treatment, when one visit to any medical practitioner would suffice, and this could be obtained for a very small fee. The cases which really are the most desirable are the chronic cases which require persistent and

expensive treatment, and also those which require special skill or special appliances such as cannot be adequately provided by the general practitioners around. For all such a rigid wage-limit is an impossibility, and the practitioners themselves are often the greatest sinners by sending patients to the hospital for treatment when they could well afford to pay ordinary fees at home. Some abuse is inevitable, and will never be absolutely stopped, but it is clear that the conscience and the judgment of the applicants themselves are most fallacious guides.

Notes on Preparations for the Sick.

Tabloids: Reduced Iron Compound; Reduced Iron and Rhubarb Compound.—BURROUGHS, WELLCOME & Co., London.—A convenient means of administering reduced iron with extract of nux vomica is afforded by these tabloids. Each contains:—

Reduced Iron	gr. 2
Extract of Hyoscyamus	gr. 1
Extract of Nux Vomica	gr. ½
Oil of Caraway	min. ¼

In practice it is often convenient to prescribe a slight variation of this formula in order to combat indigestion and constipation. For this purpose "Tabloid" Reduced Iron and Rhubarb Compound is issued. Each contains:—

Reduced Iron	gr. 2
Extract of Hyoscyamus	gr. 1
Extract of Nux Vomica	gr. ½
Compound Rhubarb Pill	gr. 1
Oil of Caraway	min. ¼

It will be observed that both products contain the same doses of reduced iron and extract of nux vomica, and both may be therefore ordered for a patient with a direction to take one or other, or both, in such proportions as from time to time meet the digestive difficulties of the case.

Effervescent Laxative Lithia; Elixir Pepsin, Bismuth and Iron.—PARKE, DAVIS & Co., London.—The effervescing compound is another of the numerous combinations of lithia with alkaline salts which are so popular at present as anti-gouty laxatives. Each spoonful dose contains five grains of lithia citrate with citrate and phosphate of potassium and sodium.

The elixir is a very useful and agreeable combination of saccharated pepsin (U.S.P.) with bismuth and ammonium citrate and soluble ferric pyrophosphate.

Glyco-Camph. Co. Buxton.—T. BUXTON & Co., Queen's Road, Clifton.—This is a modification of the ancient and popular preparation commonly called "The Infirmary Cough Syrup." It is equivalent to the syr. camph. co. (B.R.I.), but with glycerine in place of syrup, a very useful modification for the many cases in which there are positive objections to sugar.

Aseptic Nasal Douche.—This is essentially the same as the K and O glass douche which has so long been in use in the United States. It is very simple, and it renders easy the formerly troublesome operation of washing out the nasal chamber.

Antiurique de Pontac; Colchique de Pontac; Baume de Pontac.—W. EDWARDS & SON, 157 Queen Victoria Street, London.—These soulagements de Pontac have been devised for the treatment of gout. The antiurique is an effervescing combination of piperazine with alkaline benzoates. The colchicum preparation is a standardised form of colchicine prepared from the fresh flowers of Vosgian colchicum. The Baume is a pommade for external use, composed of synthetic methyl salicylate with some of the opium salicylates; it is mounted in collapsible tubes very convenient for use. These Pontac remedies have given good results in the hospitals of Paris, but are not yet much known in this country.

Diastase - Setterie.—THE BRITISH PHARMACAL COMPANY, London.—This malt extract contains the active digestive ferment of pure barley malt. Its diastasic activity is said to be greatly in excess of all the usual commercial extracts of malt, in the proportion of 300° against 24°. Its chief use is to enable the mother to make at home a malted food to serve as an aid to digestion and to facilitate the assimilation of starchy matter. It is said to be invaluable in making malted foods for infants in amyl-dyspepsia and the malnutrition of wasting diseases. It may either be mixed with milk foods, porridge, &c., or it may be taken as a medicine in teaspoonful doses. Examination in the laboratory confirms the statement that it possesses remarkable diastasic power, converting starch into maltose.

Aspirin Effervescens, gr. x in 3j; **Sodii Sulpho-Carbolas Effervescens,** gr. x in 3j; **Cerii Oxalas Effervescens,** gr. x in 3j.—BLAKE, SANDFORD & BLAKE, 49 Dover Street, Piccadilly, W.—These new effervescing combinations commend themselves as

likely to be of considerable utility. The combination with alkaline citrate increases the efficacy of the aspirin, and it also increases the solubility of the cerium salt. They should have quite a wide range of utility and be much in demand.

Fry-Allen and Hanbury's Malted Cocoa.—J. S. FRY & SONS, Bristol.—This excellent preparation is a combination of Allen and Hanbury's Extract of Malt with Fry's Pure Cocoa Extract, dried at a gentle heat to avoid injury to the diastase. It easily supplies a nutritious and invigorating beverage for breakfast, luncheon or supper. It may be taken either with water or milk, and it does not need to be boiled. A similar malted chocolate paste is also manufactured, and these foods need only to be known to be appreciated.

Milk Food Chocolate (Allenburys); **Milk Food Cocoa (Peptonised).** — ALLEN & HANBURYS, LTD. London. — The chocolate has the following composition, as shown by analysis published by the *Lancet*:—

7.62 per cent. of proteid.
33.40 per cent. of fat.
56.41 per cent of milk and cane sugars.

It is made from the purest chocolate, and contains in addition 25 per cent. of the Allenburys Milk Food. Intended primarily as a concentrated and digestible form of nutriment, it is incidentally a wholesome and delicious sweetmeat. Children can easily be given fat in this very palatable form.

On a busy day when regular meals are impossible, or during fatiguing night work, the Allenburys Milk Food Chocolate will be found handy as an "emergency ration."

The Peptonised Milk Cocoa possesses the following special advantages:—

(1) It contains a suitable proportion of milk, and can be quickly and easily made, the addition of hot water only being necessary.

(2) Being peptonised, it can be taken by invalids and children, and by those who cannot take ordinary cocoa.

Manhu Diabetic Foods.—THE MANHU FOOD CO., LIMITED, 88 Charing Cross Road, London, W.C.—We have received samples of many varieties of the Manhu foods, including the diabetic flour, biscuits, flaked wheat, flaked barley, prepared barley, barley-cocoa, and diabetic macaroni.

These foods have been much appreciated by certain patients, who have much preferred them to the ordinary starchless glutin foods for diabetics.

This is what the promoters say of their diabetic foods: "The Manhu treatment of diabetes does not consist of drugging the patient, nor of excluding the use of carbohydrates. The starch granules proper to the cereal may be demonstrated under the microscope as still existing in Manhu Diabetic Flour. Its principle is a treatment of the flour which so modifies the molecular conditions of the carbohydrates that they are more easily broken up into carbon dioxide and water, and thus they are made assimilable and reducible in the systems of diabetics, to whom ordinary carbohydrates are a poison. No drugs are given. The aim is to supply agreeable nutrition in such a form as will feed the system of the diabetic. Experience shows that if the diabetic can be kept alive and up to normal weight by means of suitable foods, a natural recovery at length takes place. The Manhu foods do not act as a poison, like ordinary breadstuffs, on the diabetic system. At the same time they will keep a healthy man in full vigour for an indefinite time, while for invalids generally they maintain the strength most admirably."

Micro-chemical examination enables us to confirm the above statement, inasmuch as it is easy to see the numerous starch granules which are undoubtedly present. The diabetic bread was found to give the characteristic reactions of starch. It must be for the physician to decide whether such foods are desirable for the individual case.

Perrier: French Natural Sparkling Table Water.—PERRIER, New Bond Street, London.—This water attracted much attention at the British Medical Association meeting in Oxford last year. It comes from the South of France; its purity is guaranteed, and it sparkles freely with its own natural gas, without any artificial æration.

Mr. W. Martindale, 10 New Cavendish Street, London, sends us a large variety of excellent and useful preparations:—

Sterilised Dressings:—
Absorbent wool.
Sterile Bandages, in hermetically sealed tin.
Dried Moss, compressed into sheets, gauze covered, very absorbent.

Amyl nitrite capsules.

Syrupus iodo-tannicus (gr. ij of iodine in each drachm).

Maltolivine, an emulsion of olive oil with malt extract for habitual constipation.

Lithium hippurate, effervescing.

" " vescettes, gr. v.

Lithion, a granular combination of lithium citrate, mag. sulph. and sod. sulphate.

Glycaphorm, a glycerole of diacetyl-morphine hydrochloride, for the relief of cough.

Lysoform mouth wash, tooth paste, and pessaries.

These excellent, and for the most part well-known, preparations are all prepared and mounted with great care; their uses are sufficiently obvious, but further details may be found in Martindale's *Extra Pharmacopœia*.

The **amyl nitrite capsules,** glass encased in cotton wool and silk, are invaluable in the treatment of angina, spasmodic asthma, migraine, neuralgia, *post-partum* hemorrhage, hæmoptysis, as an antidote to chloroform, to ward off epileptic attacks, in threatened fainting and other fits, and as a restorative after gas in dental extractions.

Similar glass capsules are manufactured of adrenalin (an economical and handy way of keeping the solution), chloroform, ether, ethyl bromide, ethyl iodide and chloroform combined, of sodium cacodylate, and of distilled water. These latter are

convenient for dissolving hypodermic tablets, particularly where the medical man is called out and has reason to doubt the cleanliness of the water.

Ether soap also ether soap with mercuric iodide are useful detergent preparations for operative work.

Iodum oleatum. — A non-staining iodine and oleic acid compound containing 10 per cent. of iodine.

Marrubin.—A bone marrow preparation as a nutrient for children, and in anæmia.

Lang's Eye Bottle.—Useful for the consulting room. Stands are supplied; they are either plain or engraved with the solutions usually employed—cocaine, homatropine, atropine, &c.

Analytical Outfits for the medical man, including bacteriological test cases, urine test cases, &c.

Furonculine.—THE ZYMA COMPANY FOR BACTERIOLOGICAL PHARMACY, Montreux, Switzerland. General Agents for Great Britain: Messrs. THOMAS CHRISTY & Co., London.

It is claimed that this preparation on the basis of dry beer yeast is the only product of its kind in which the cells of the beer yeast have preserved their vitality.

Dr. Du Bois says that it "acts as a powerful stimulant and antiseptic on the intestinal canal, influencing favourably urticaria, acne, and boils, and that its stimulant and antiseptic properties are exhibited in a degree no less remarkable by its action on external ulcerations of a callous nature."

It is not unpalatable, and should therefore be welcomed by those who suffer from these forms of skin disease.

Antidiabetic yeast has long been used in the treatment of glycosuria. It is believed to be of value in the treatment of diabetes mellitus, more especially at the commencement of the disease, for it is at this stage that the sugar which is eliminated is derived chiefly from the carbohydrates. In the later stages its merits depend upon its power of allowing a less restricted dietary not only without damage but with positive benefit to the patient. Furthermore, by the chemical modifications to which its activity gives rise in the digestive tract it acts as a powerful intestinal antiseptic, an effect which is of special value to diabetics, who are, as is well known, very susceptible to the slightest intoxication, and who bear such intoxication remarkably badly.

Elixir Cascaræ Sagradæ (Pitchford).—W. PITCHFORD AND SON, Bristol.—This is a palatable preparation of cascara sagrada, from which the bitter principle has been removed without impairing the aperient properties of the drug.

One special feature is that the sweetening agent is glycerine, not sugar, which is objectionable in certain cases. The flavour of the elixir is due to tincture of orange.

Syrup. Glycerophosph. Co. (Pitchford).—An elegant pharmaceutical product, containing amongst other ingredients glycerophosphates of iron, calcium, and magnesium. The glycerophosphates enable the physician to administer phosphorus in a convenient and readily assimilable form.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in December:

February 28th, 1905.

L. M. Griffiths (1)	2	volumes.
Laryngological Society of London (2)	1	volume.
Medical Officer of the London County Council (3)	1	,,
Luzerne County Medical Society (4)	1	,,
Otological Society of the United Kingdom (5) ...	1	,,
Pathological Society of London (6)...	1	,,
Rhode Island Medical Society (7)	1	,,
The Scholastic Trading Company (8)	1	,,
Society for the Study of Disease in Children (9) ...	1	,,

FIFTY-FIFTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Atlas of Illustrations of Clinical Medicine, Surgery and Pathology, An.	Fasc. XIII.		1904
Bain, W. [Ed.] ...	*A Text-Book of Medical Practice*		1904
Barwell, R. ...	*Lateral Curvature of the Spine*	6th Ed.	1905
Burton-Fanning, F. W.	*The Open-Air Treatment of Pulmonary Tuberculosis*		1905
Constant, T. E. ...	*The Naked-Eye Anatomy of the Teeth*		1905
Cuff, Isla Stewart and H. E.	*Practical Nursing*	New Ed.	1904
Fernie, W. T. ...	*Meals Medicinal*		1905
Gant, F. J. ...	*Auto-Biography*		1905
Grimsdale, H. B.	*Ophthalmic Surgery*		1904
Hirshberg, L. K....	*Light as a Therapeutic Agent*	(7)	1904
Latham, A.	*Pulmonary Consumption*	2nd Ed.	1905
McKay, W. J. S. ...	*The Preparation and After-Treatment of Section Cases*		1905
Macnaughton-Jones, H.	*Manual of Diseases of Women*	9th Ed.	1904
Pamphlets	8 vols.		[V.D.]
Poincaré, L.	*Prophylaxie et Géographie médicale*	(1)	1884
,, ,,... ...	*Traité de Hygiène Industrielle*	(1)	1886
Pugh, W. T. G. ...	*The Infectivity and Management of Scarlet Fever* ...		1905

Reed, B. ... ... *Diseases of the Stomach and Intestines* 1905
Sequeira, J. H. ... *Light Treatment for Nurses* 1905
Shaw-Mackenzie, J. A. *Hypodermic Medication in Inoperable Cancer* ... 1904
Stewart and H. E. Cuff, Isla *Practical Nursing* ... ...New Ed. 1904
Williams, C ... *A Short Essay on Insanity* 1905

TRANSACTIONS, REPORTS, JOURNALS, &c.

American Journal of Obstetrics, The ... ... Vol. XLIX. 1904
American Laryngological Association, Transactions of the 1904
American Ophthalmological Society, Transactions of the Vol. X., Part 2 1904
American Surgical Association, Transactions of the... ... Vol. XXII. 1904
Association of American Physicians, Transactions of the Vol. XIX. 1904
British Almanac, The 1905
British Medical Journal, The ... ... Vol. II. for 1904
Buffalo Medical Journal ... ... Vol. XLIII. 1904
Canada Lancet, The ... ... Vol. XXXVII. 1903-04
Clinical Journal, The ... ... Vol. XXIV. 1904
Columbia University, Studies from the Department of Pathology of the College of Physicians and Surgeons ... ... Vol. IX. 1903-04
Écho médical du Nord, L' 1904
Edinburgh Medical Journal, The ... . N.S., Vol. XVI. 1904
Edinburgh Obstetrical Society, Transactions of the ... ... Vol. XXIX. 1904
Hazell's Annual 1905
Hospital, The ... ... Vol. XXXVI. 1904
Hospitals—
Guy's Hospital Reports ... ... Vol. LIX. 1905
Saint Bartholomew's Hospital Reports ... ...Vol. XL. 1905
Saint Thomas's Hospital Reports ... ... Vol. XXXII. 1904
Journal of Tropical Medicine, The .. .. Vol. I. 1898-99
Lancet, The ... ... Vol. II. for 1904
Laryngological Society of London, Proceedings of the ... (2) Vol. XI. 1904
Laryngoscope, The ... ... Vol. X. 1901
London County Council, Report of the Medical Officer for 1903 ... (3) 1904
Luzerne County Medical Society, Transactions of the ... (4) Vol. XII. 1904
Medical Directory, The 1905
Medical Record, The ... ... Vol. LXV. 1904
Münchener medizinische Wochenschrift ... ... Vol. II. for 1904
New Hampshire Medical Society, Transactions of the 1904
Odontological Society of Great Britain, Transactions of the, Vol. XXXVI. 1904
Ophthalmological Society of the United Kingdom, Transactions of the Vol. XXIV. 1904
Otological Society, Transactions of the ... ... (5) Vol. V. 1904
Pathological Society of London, Transactions of the ... (6) Vol. LV. 1904
Pennsylvania Medical Journal, The ... ... Vol. VII. 1904
Polyclinic, The ... ... Vol. VIII. 1904
Progressive Medicine ... ... Vol. IV. 1904
Practitioner, The ... ... [Vol. LXXIII.] 1904
Public Health ... ...Vol. XVI. 1903-04
Publishers' Circular ... ... (8) Vol. LXXX. 1904

Revue hebdomadaire de Laryngologie ... ... Tome XXIV. 1904
St. Louis Medical and Surgical Journal Vols. LXXXVI., LXXXVII. 1904
Sanitary Record, The ... ... Vol. XXXIV. 1904
Smithsonian Institution, Annual Report for 1903 1904
Society for the Study of Disease in Children, Reports of the (9) Vol. IV. 1903-04
Whitaker's Almanack 1905
Who's Who 1905
Year-Book of Scientific and Learned Societies 1904

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

December 14th, 1904.

Dr. REGINALD EAGER, President, in the Chair.

Mr. A. W. PRICHARD showed an old man with **double inguinal hernia** who was using with success a special form of truss for retaining the herniæ. Three years previously the left hernia had been operated upon for strangulation. The hernia had descended again after twelve months, and had now large dimensions. There was also a hydrocele on this side and a considerable hernia on the right side. No ordinary truss could be found to successfully retain these herniæ. The patient, who was a carpenter, had himself made the appliances he was now wearing. It consisted of a curved plate, made of curved pieces of wood joined together. It was roughly shield-shaped and slightly concave. Straps passed from its upper border and lower border, the latter beneath the perineum, to a waist-belt. The belt itself was partially supported by shoulder straps.—Mr. R. G. P. LANSDOWN pointed out that the hernia was of the direct variety, and such herniæ were very difficult to retain with trusses.—Mr. HANCOCKE WATHEN considered that double trusses were always to be preferred to single ones in the treatment of hernia.

Dr. A. OGILVY showed the following three cases:—(*a*) A man with a form of **retinitis proliferans**. The view of authorities was that the retinal changes in retinitis proliferans were the result of old hemorrhages from the retina into the vitreous. These became organised and vessels developed in them. If in such hemorrhages, say of hempseed size, the connective tissue became absorbed, leaving the newly-developed vessels, then appearances such as those presented by his patient would be accounted for. The patient did not show white masses growing into the vitreous from the retina. (*b*) A case of **pemphigus with**

essential shrinking of the conjunctiva. This condition had been first described in 1848. The cases were very rare, being met with about once in 22,000 eye cases in eye clinics. One dermatologist had not once seen the condition in 200 cases of pemphigus. The patient had had pemphigus off and on for sixteen years. The shrinkage was due to the formation of fibrous tissue beneath the bulbar and palpebral conjunctiva and the subsequent shrinkage of the fibrous tissue. Gland ducts became blocked. The cornea might get thickened. No treatment was of any avail. Lanoline was being applied and arsenic and iron given internally. (*c*) A case of **exostosis of the orbit.** An X-ray photograph was exhibited which showed a dark shadow in the position of the exostosis. The latter was situated on the inner wall of the orbit, and its anterior part was easily palpable. In removing it probably the ethmoid cells would be broken into, and if suppuration occurred and an orbital abscess formed then opitic neuritis and blindness would be likely to follow. The eye on the affected side was myopic. It had probably become so through excessive efforts in convergence with consequent elongation of the eyeball. There was some astigmatism also. If the exostosis were left untreated probably blindness would result. There was already some failure in vision even with proper glasses.—Mr. C. H. WALKER thought the retinal changes in the first case were typical of diabetic and renal retinitis in the left eye and like those of the retinitis proliferans of diabetes in the right eye. It would be interesting, the speaker remarked, to know exactly how frequently fresh cases of exostosis of the orbit were met with. He had seen one case operated upon and two which had been exhibited at the Ophthalmological Society of London. It was not necessary to assume that it was an ivory exostosis. The case he had seen operated upon had been of the spongy variety and had been fairly easily removed. Chisels and forceps were better instruments for the operation than drills. It seemed likely that the patient now shown had first developed astigmatism, and then myopia had followed from attempts to get over the effects of the astigmatism.—Dr. HARRISON remarked that among some 22,000 skin cases he had observed not one had had shrinking of the conjunctiva like the case shown. He had seen bullæ in the eyes, however, in association with pemphigus. —Dr. MICHELL CLARKE had seen a case of syphilitic disease of the retina with a small leash of vessels. A clot of blood would be absorbed without a leash of vessels being left. The changes in the retina in the case shown were more likely to be inflammatory formations associated with disease in the vessel walls.— Mr. PAUL BUSH recommended removal of the orbital exostosis as there was evidence of impairment of vision. The photograph suggested that the growth was of compact bone. It might have a narrow neck, which would render removal easier. —Dr. OGILVY replied that he had seen two children develop

shrinkage of the conjunctiva after strumuous eye troubles, and another case of shrinkage in an old lady without pemphigus. Bullæ on the conjunctivæ in pemphigus were rare because the epithelium there was thin.

Mr. T. CARWARDINE showed the following specimens:—(*a*) **A prostate with vesical and prostatic calculi** removed from the same patient; (*b*) **a vesico-vaginal calculus formed around a hair-pin**; (*c*) **a stellate vesical calculus**; and (*d*) **a hydatid cyst with well-marked scolices** obtained from a rabbit's leg.

Dr. STACK showed **microscopical sections of an ovarian tumour** which had been removed by Mr. Prichard and had been thought to be an example of the so-called Rokitansky's tumour. The cysts, where any epithelial lining remained, showed the lining to be of columnar cells. Solid parts of the tumour had an appearance under the microscope like that of fibroid tumours. He had failed to find an ovum in the individual cysts examined. In Rokitansky's tumour it was characteristic to find an ovum in each cyst.—Mr. ROGER WILLIAMS said it was disappointing to hear that ova had not been found in the cysts. The best time to examine for these was when the specimen was fresh. He had examined one specimen in the fresh state and seen the ova come out of the cysts when they were laid open. It was remarkable that ordinary ovarian cysts did not interfere with menstruation, and this fact suggested that these growths did not start in strictly ovarian tissues, but more probably started in Wolffian remnants. In this tumour the true ovarian tissue was concerned and the cysts were distended ovi-sacs.

Mr. C. A. MORTON read a paper advocating **the preservation of the limb in operations for sarcoma of bone**, and showed a patient from whom half the fibula had been excised for periosteal sarcoma and the specimen obtained. The patient was a woman of 25. The tumour involved the upper part of the left fibula, and projected into the calf. A skiagram showed an irregular bony projection. Mr. Morton had determined to try and remove the tumour instead of amputating the limb. The anterior tibial artery had to be ligatured, but not the posterior. The external popliteal nerve had been preserved. The upper half of the fibula, with the encapsuled tumour surrounding it, had been removed. Microscopical sections showed the presence of much cartilage in the tumour. It was now ten weeks since the operation. The patient could walk with a stick. She could not invert or evert the foot. Discussing the methods of treatment of sarcoma of bone, the speaker pointed out that amputation does not prevent recurrence of the disease in the lungs and other places. Even local recurrence would not convince him that amputation should be adopted in every case. He considered that in every case in which there was a well-encapsuled periosteal growth the growth and the affected part of the bone should be excised if a good limb could be left. If the upper end of the tibia were involved he would not hesitate to remove

four inches of bone. Mr. Bland Sutton had reported a case of sarcoma of the fibula in which he had first excised the growth, believing that sarcoma of the fibula was not so malignant as sarcoma in other bones. In that case there had been recurrence in the scar, and amputation had been subsequently performed. The patient died two and a half years after the first operation. There was no need to urge the advantage of the excision method of treatment if the tumour was a myeloid sarcoma or myeloma, as it had been proposed to call that variety of tumour. Mr. Morton showed a patient from whom he had removed a large part of the upper end of the tibia for myeloid sarcoma seven years previously. There was no recurrence, and the patient had a very serviceable leg with a stiff knee. In this class of tumour it was a question whether it was necessary to excise bone, or merely to scrape out the growth. After such scraping operations a sinus was apt to persist, leading to the cavity left in the bone. In two cases such a sinus had remained open for two years. Probably it would be well at the time of operating to fill the cavity with decalcified bone. The speaker asked other surgeons why they would amputate rather than excise the tumour in cases of periosteal or endosteal sarcoma.—Mr. PAUL BUSH mentioned a case in which he had removed all the scapula except the glenoid part for a sarcoma involving the vertebral segment. There had been no recurrence at the end of the year. Against that experience he quoted a case in which he had removed the whole of the clavicle for an encapsuled sarcoma. The tumour recurred early in the sacrum. —Mr. H. F. MOLE remarked that the quoted case of Mr. Sutton's told rather against the excision method of treatment. He thought the innovation suggested was a bold one. Results would have to be awaited before the suggestion could be accepted.—Mr. ROGER WILLIAMS said there were two questions to be considered—firstly, that of the propriety of the local removal of myeloid tumours; and secondly, that of the treatment of other forms of sarcoma of bone. Is a myeloid tumour innocent or not? To settle that question a collection of 50 or 100 cases were required, and also cases which were not operated upon. If you examined such collections of cases you would see that myeloid sarcoma was not innocent, and that it affected glands and other organs. Possibly other diseases of bone, such as tubercular or syphilitic disease, had sometimes been mistaken for myeloid sarcoma, for in microscopical sections of such diseased tissue myeloid cells might be present. A study of large numbers of cases of periosteal sarcoma showed that they were very malignant. Perhaps they were the most malignant tumours of the body. He thought no sufficient reasons had been advanced which justified the treatment of such cases by excision rather than by amputation.—Dr. MICHELL CLARKE pointed out that numerous spindle cells were present in myeloid sarcoma as well as myeloid cells.—Mr. MUNRO SMITH mentioned

a case of sarcoma of the lower end of the tibia, for which he had amputated at the knee-joint. There had been early recurrence in the stump and elsewhere.—Mr. MORTON, in replying, said there was no evidence as to the frequency of recurrence after local operations. There was no evidence to show that there was a greater liability to local recurrence than in the case of sarcoma of a muscle, for which amputation was not recommended.

Dr. BERTRAM ROGERS showed and explained the use of **Vernon Harcourt's chloroform inhaler.**

January 11th, 1905.

Dr. REGINALD EAGER, President, in the Chair.

Professor THOMAS CLIFFORD ALLBUTT, M.D., LL.D., F.R.S., delivered an address on "The Prevention of Apoplexy." (See page 1.)

After Professor Clifford Allbutt's address, the President called on Dr. SHINGLETON SMITH, who proposed a vote of thanks to the Regius Professor of Medicine in the University of Cambridge for his address. Since first meeting Professor Allbutt at Bath, in the year 1877, Dr. Smith had observed how freely the lecturer had been dispensing knowledge ever since. He not only had himself learnt to know, but could teach others what he knew. His old pupils—formerly at Leeds, more recently at Cambridge—manifested the greatest, almost a reverential, regard for their teacher; but we all might claim to be more or less his pupils, for we had sat at his feet and imbibed deep draughts of instruction, either oral or written. The subject matter of the evening—the difficult task of the prevention of apoplexy—had been made most interesting and instructive. The study of arterial sclerosis and its results on brain, heart, and kidneys opened up a wide field for discussion, and we all recognised how many are the fallacies associated with the accurate measurement of pulse tension, and all attempts to regulate this tension by different modes of treatment. The speaker made an inquiry as to the best clinical method of gauging the tension for purposes of treatment: and he remarked, in conclusion, that the members of the Society, indirectly also their patients, would benefit much by the address which Professor Clifford Allbutt had given.

Mr. DACRE seconded the proposed vote of thanks, which was subsequently put to the meeting and carried by acclamation.

February 8th, 1904.

Dr. REGINALD EAGER, President, in the Chair.

Mr. H. F. MOLE showed the following cases: (1) **An infant operated on for spina bifida at the age of fourteen days.** The

skin-covering had been very thin and parchment-like, except at the periphery. The thinned skin had been enclosed by two elleptical incisions and removed with the adherent sac. The remaining part of the sac had then been separated from the parts around. The adherent nerves were separated and placed in the spinal canal. The superfluous part of the sac was cut away and the margins left sutured across the opening in the spine and then the skin sutured transversely. The infant at the present time, seven months after the operation, was well developed and had no paralysis. The right leg, however, was not moved much, and had not grown as much as the other. (2) **A case in which a rupture of the jejunum had been successfully sutured.** The man had been struck in the epigastrium rather to the left of the middle line by the pole of a swinging-boat. He had had no food for eight hours previously. He became much collapsed after the accident, but was able to take a tram to the infirmary and to walk into the casualty room. On admission, the patient was rather collapsed, and the abdomen hard and tender in the upper part. Pulse 62 and good. Two hours later the pulse was 72, and the patient had vomited three times during the interval. The operation was performed four hours after the accident. Blood and sticky mucous were found in the peritoneum, and the jejunum was torn through for fully half its circumference just beyond the duodeno-jejunal junction. The rent was sewn up with a double line of sutures and the abdomen washed out with saline fluid. Convalescence was uneventful. (3) **A case of colectomy for carcinoma of the colon.** The man walked into the out-patient room, though he had had complete intestinal obstruction for ten days. The abdomen was distended, but nothing else abnormal could be made out, except that there was an old right inguinal hernia not entirely reducible. At the operation the hernial swelling was first explored and a sac containing fluid discovered. A median incision then revealed a growth in the sigmoid flexure, which was closely adherent to the parietes. Through a third incision the growth was brought outside the abdomen, with difficulty owing to the shortness of the mesentery. Three days later the bowel was opened above the growth. On the twelfth day the growth was excised. Three and a half months later the artificial anus was closed. At this time the lower end of the bowel was found to be completely closed like the finger of a glove, and was of only half the calibre of the upper segment. The bowel had been severed very near the growth, but now, twelve months later, there was no sign of recurrence. (4) **A case of excision of the wrist for tubercular disease.** The joint had been very extensively diseased, looking as though only amputation could yield good results. The lower ends of the radius and ulna were carious, and there was extensive teno-synovitis of the extensor tendons. The joint was now somewhat stiff, but the tuberculus disease had been cured. A skiagram showed reproduction of bones in the carpal region.

—Dr. JAMES SWAIN discussed the diagnosis of severe internal abdominal injury and simple abdominal contusion. In the latter the shock tended to pass off in about twelve hours, whereas in the former the shock tended to increase. In other cases there was some recovery from shock followed by a relapse. The relapse was then due to internal hemorrhage. Vomiting was usually a marked symptom when the intestine was ruptured. Referring to the case of colectomy, the speaker said that as a rule if the growth was not immediately removed it was better to remove it and close the opening at the second operation, instead of performing three operations. A still better way, unless the patient was very exhausted, was to remove the growth at the first operation and drain the bowel with Paul's tubes. Probably, in Mr. Mole's case these methods were not suitable.

Dr. J. J. S. LUCAS showed the following two cases, and also a morbid specimen. (1) **A case of tuberculous meningitis.** The patient was a girl, previously healthy and rather clever. The illness began nine weeks ago. There was first headache for four days, then incoherent talking, then on the sixth day a high temperature but no rigors. Other symptoms present were *tache cérébrale*, excessive knee jerks, retraction of the head, retraction of the abdomen, involuntary micturition. Later the patient was quite insensible, and lay on her side with the legs coiled up. There was no optic neuritis. The temperature was irregular for some weeks, generally varying between 99° and 101°F. The breathing for a time was irregular, almost of the Cheyne-Stokes type, and the pulse irregular. Henley's pupil sign was present. A lumbar puncture was made, and 5 c.c. of clear cerebro-spinal fluid withdrawn. Attempts to obtain cultures from the fluid failed. The case had been considered a hopeless one of tubercular meningitis. Fourteen days later the temperature dropped to normal, and signs of returning intelligence were shown, and from that time the patient's intelligence had continued to improve. At present she could do things which were suggested to her, *e.g.* she could count if started and play tunes on the piano. The speaker referred to other cases of supposed recovery from tubercular meningitis. (2) **A case of exophthalmic goitre in a man with glycosuria.** The patient had been treated for glycosuria nine years ago. Since then he had repeatedly been rejected for life insurance. When seen by the speaker last December his pulse was 140, and he had a large goitre and other symptoms of Graves's disease. Sugar was not invariably found in the urine and diet did not seem to cause its excretion. Excitement would apparently bring on glycosuria. (3) **A specimen of congenital malformation of the intestine.** At a distance of fifty-five inches from the stomach the intestine was closed, the blind extremity being dilated, and the remaining twelve inches of the small intestine were contracted, the lumen only admitted a probe. The case had been operated upon by Mr. Mole. Such malformations were very uncommon. The causation of the de-

formity in this case the speaker could not discover. There was no evidence of fœtal peritonitis.—Dr. SHINGLETON SMITH said that the diagnosis of tubercular meningitis in the first case need not be apologised for because recovery ensued, and he thought he had seen two or three cases of recovery from the disease, and with better results than in the present case. He thought that iodoform inunctions of the scalp might possibly be of use, judging by the effect of such inunctions over the abdomen in tubercular peritonitis.—Dr. J. O. SYMES criticised the view stated, that the clearness of the cerebro-spinal fluid favoured the diagnosis of tubercular meningitis. He would expect the fluid to contain lymphocytes. The inoculation test for tubercular disease with the fluid would be the best test.—Dr. F. H. EDGEWORTH, who had seen the meningitis case with Dr. Lucas, agreed with the diagnosis. Inunctions with mercurial liniment had been vigorously used, and perhaps had effected the cure. The mental changes suggested that the meningitis was of the convexity. The patient had had Kernig's symptom well marked. In one foot there had been an extensor plantar reflex, suggesting a cortical lesion. Referring to the case of glycosuria, the speaker said that thyroid extract, which increased metabolism, if given to a diabetic increased the output of urea and of sugar, the latter vastly.—Dr. SWAIN thought the malformation of the intestine was probably the result of excessive involutionary changes in the omphalo-mesenteric duct or elsewhere.—Dr. BERTRAM ROGERS thought there must be some other cause at work than that suggested by the last speaker, and alluded to an example he had recorded of congenital stricture of the œsophagus.—Dr. LUCAS, in replying, said that given a case of meningitis, clear cerebro-spinal fluid would favour the diagnosis of the tubercular form rather than the basic-meningitis, as also would the negative results of culture experiments. The majority of congenital strictures of the intestine were high up, and could therefore have nothing to do with Meckel's diverticulum.

Dr. FORTESCUE-BRICKDALE showed a **specimen of congenital dilatation of the ureters and cystic kidneys** from a child. The patient died from bronchitis, and no history of urinary symptoms had been obtained. The ureters were dilated and the bladder hypertrophied. A No. 2 catheter passed along the urethra easily, and there was no trace of obstruction in that canal. He had been unable to force water through the ureters into the bladder, and thought this proved that the obstruction was at the bladder, and he suggested that in these bilateral cases the hyperplasia of the bladder, together with spasm of the muscles, was the cause of the obstruction in the lowest parts of the ureters.—Dr. SWAIN mentioned a case of hydronephrosis, supposed to be a case of congenital cystic kidneys, in which the swellings had disappeared after circumcision.—Dr. THEODORE FISHER thought the ureteral obstruction might be valvular, the

valve allowing fluid to pass easily towards the kidneys but not towards the bladder.—Dr. GEORGE PARKER pointed out that one kidney was much larger than the other, and asked if congenital cystic disease of the kidney was present. In the cystic disease of the kidneys in adults he doubted if the disease was congenital.

Dr. THEODORE FISHER showed a specimen of **chloroma of the dura mater**. The tumour was in the dura mater at the junction of the anterior and middle fossa, and such tumours usually arose in the neighbourhood or in the periosteum of the orbit, causing exophthalmos. There was generally marked leucæmia, and often enlargement of lymphatic glands and affection of bones. Microscopically the tumour was a lymphoma. It was of a bright green colour in the fresh state. A complete *post-mortem* examination had not been allowed.—Dr. SHAW described the symptoms of the patient, a child of five years of age, from whom the specimen had been obtained. Headache and vomiting were the first symptoms. Later there were convulsions beginning in the right side, and leaving that side paralysed. Paralysis of the left third nerve was next observed. On admission to the Bristol Royal Infirmary the child, in addition to the above symptoms, had motor aphasia, and was emotional. She could use four words, and made her wants well understood with these. The symptoms were those of a tumour of the left crus, but without optic neuritis.—Dr. EDGEWORTH pointed out that hydrogen peroxide would restore the green colour of the tumour when it had faded. One outlying lobule was not green even in the fresh state, and this supported Brammall's statement that the green colour was not an essential feature of these tumours, and his prediction that lymphomata without the colouring would be found.

J. LACY FIRTH.
H. F. MOLE *(Hon. Sec.)*.

Obituary Notices.

WILLIAM JOHN PENNY, F.R.C.S. ENG.,

Consulting Surgeon to the Bristol General Hospital.

WE regret to have to record the death of Mr. W. J. Penny, formerly residing in Clifton. He died near Mombasa, in British East Africa, on the 15th of December last. Mr. Penny was the eldest son of Mr. William Penny, of Crewkerne,

Somerset, and he received his professional education at King s College, London, where as a student he had a prosperous and brilliant career, popular alike with his fellows and teachers, as could be readily imagined by those who knew him in these early days and for some years after. He was an able and industrious student, and he had the good fortune to be at King's during the time that Professor (now Lord) Lister was actively carrying out and developing his great work of antiseptic surgery. Mr. Penny attracted the attention of Lord Lister by the skill and care with which he mastered the details of the antiseptic treatment of wounds: nothing could exceed the devotion and enthusiasm with which he followed the teachings of his great master. Mr. Penny held many appointments at King's College Hospital: he was house-surgeon, surgical registrar, and finally assistant-surgeon, when he seemed to have the prospect of a great professional future. At this period of his life Mr. Penny was a most genial companion, with many social qualities which gained him many friends. He possessed a decision of character and a firmness of purpose which made strangers immediately feel they were in the presence of a strong man to an extent which those who knew him at a later period would find it difficult to understand. Mr. Penny was rather above the middle height, had a good presence and a well-knit and strongly-built frame. He looked one of the most robust of men, but in spite of this he early broke down, and died in his 48th year.

As an athlete Mr. Penny was greatly distinguished in football, being captain of his Hospital XV. He played constantly for the United Hospitals and Somerset County, and on several occasions for England. He was considered by those who know of these matters to be the best "full back" of his time.

Locally Mr. Penny is best known for the good work he did for many years at the Bristol General Hospital. He was appointed house-surgeon to that institution in 1881, and held this office for the full period of three years to the satisfaction of all who were connected with the hospital. At the close of his term of office as house-surgeon he started in practice at Clifton. Soon afterwards he was elected assistant-surgeon, and in 1889 full surgeon; but after some seven years' work in this capacity he was compelled to resign from broken-down health, when he was placed on the consulting staff. There is no doubt that had his health remained good Mr. Penny would have had one of the largest surgical practices in the West of England. He was obliged to give up work at the early age of 37, when he retired to the country, and of late has been seldom seen by his old friends and colleagues. Mr. Penny was unmarried. He took the F.R.C.S. Eng. in 1885, was a member of the Bristol Medico-Chirurgical and other societies, and for a time was demonstrator of anatomy at University College, Bristol.

EUBULUS WILLIAMS, M.D., M.R.C.S.

It is with sincere regret we notice the death of Dr. E. Williams on January 9th, in his 74th year. Born at Williton, Somerset, he received his medical education at Guy's Hospital. After qualifying he was appointed house-surgeon to Reading Hospital in 1854, and in 1855 was appointed the first medical superintendent to the Dundee Royal Infirmary. In those days typhus fever was endemic in Dundee, and his experience in that disease, which is nowadays unknown to most practitioners, was considerable—and personal, for he nearly succumbed to an attack contracted during his work in the infirmary. After nearly three years' residence, he spent some time studying in the hospitals of Paris and Vienna. He settled in practice in Bristol in 1858, soon afterwards marrying the daughter of the late Patrick Watson, of Dundee. Dr. Williams was associated with Dr. Mortimer Granville and the late Dr. Henderson at the dispensary in St. James' Square for "diseases of women and children." This work prospered, and ultimately led to the starting of the Children's Hospital on St. Michael's Hill, when Dr. Williams became a member of the surgical staff. After a time he resigned, owing to pressure of engagements, but was re-elected surgeon in 1863. In 1867, when his practice was rapidly increasing, he was induced by his friend, Dr. Gibbs Blake, of Birmingham, to investigate and test the principles of homœopathy, and in consequence of convictions which we have good reason to know were sincere he resigned his appointment at the hospital which he so dearly cherished. He continued to practice up to within a short time of his death.

For thirty-four years he was physician to Müller's Orphanage, in which great philanthropic institution he ever took the keenest interest. We cordially endorse the remarks of the Bristol press that "it will be judged from his life-history that he was a man of independent thought; he had a kindly disposition and wide sympathies"; and though we cannot pretend to sympathise with the therapeutical views he held and practised, we can admire the honesty and sincerity of purpose which won for him not only the confidence of his patients, but the warm regard of many members of the medical profession of Bristol, and none the less for his remaining faithful to his convictions to the end.

ALEXANDER CARR, M.R.C.S.

We regret to have to record the death, at the age of 70, of Mr. Alexander Carr, M.R.C.S., of Knowle, on January 23rd, 1905, one of our original members. Mr. Carr received his medical education at Charing Cross Hospital, where he was a favourite pupil of Charles Guthrie, then President of the Royal

College of Surgeons. He qualified as M.R.C.S. in 1854, and soon afterwards was appointed house-surgeon at the Westminster and afterwards at the Royal Westminster Ophthalmic Hospital, where he gave universal satisfaction. He fully intended to take up eyes as a speciality, and with that intention settled for a time in Park Lane and studied for his Fellowship. Financial losses, however, compelled him to go into general practice, and for the last forty years of his life he lived at Knowle.

He was a man universally respected, and he was associated with most of the social functions in the district. He was a staunch Conservative, and for a short time was one of the members of the old School Board. He was also a prominent High Churchman, and a regular attendant at Holy Nativity, Knowle, ever since it was built. Quite lately he had been elected vice-president of the Bristol Church Guild Union. Of a quiet, retiring disposition, he made no enemies, and his patients were essentially his friends. He was generous, and the poor of the district will sadly miss his kindness and gentleness.

He seldom spoke in public, but when he did so had a quaintness and dignity which always fixed the attention of his audience. Among other reminiscences, he used to relate that in pre-antiseptic days after amputating a leg in a colliery district he freely dusted the wound with pepper to keep off the vermin.

The funeral, at his own desire, was of the simplest character, and the church was crowded with acquaintances and friends.

Since Mr. Carr left London he gave up writing to periodicals, but previously he had written "Observations on the Pathology and Treatment of Mesenteric Disease," and had contributed to the *Lancet*, 1858, "On Application of Tincture of Iodine in Treatment of Trichiasis, Distichiasis, and Ptosis" and "Observations on the Treatment of Nebula."

Local Medical Notes.

University College, Bristol.—Students of the College have been successful in the following examinations:—

UNIVERSITY OF LONDON, M.D.—A. R. Short (Gold Medal), J. J. S. Lucas.

M.B., Intermediate Examination.—A. E. Iles. *Organic Chemistry only:* P. C. Field.

CONJOINT BOARD OF LONDON.—*Chemistry:* F. C. Morgan. *Biology:* R. S. S. Statham. *Practical Pharmacy:* P. Moxey.

Medicine: L. N. Morris,* F. Shingleton Smith, L. Shingleton Smith. *Midwifery:* F. G. Bergin, W. J. H. Pinniger, F. Shingleton Smith.

L.S.A.—*Medicine:* P. F. Howden.*

Bristol Royal Infirmary.—R. Shingleton Smith, M.D., F.R.C.P., having retired from the Honorary Visiting Staff, has been elected Consulting Physician; and P. Watson Williams, M.D., has been elected Physician to the Bristol Royal Infirmary.

The Winsley Sanatorium.—The rules for the admission of patients are as follows:—

I.—Only patients suffering from pulmonary and laryngeal tuberculosis in the early stages, or where a reasonable prospect is afforded of marked alleviation or cure by treatment in the Sanatorium, will be admitted.

II.—Patients will not be eligible for admission to the Sanatorium unless *bona fide* residents in one or other of the counties of Somerset, Gloucester, and Wilts.

III.—Only those persons who are not recipients of Poor Law relief, but who are unable to pay more than 15s. per week, are eligible as patients.

IV.—No patient will be admitted under 10 or over 60 years of age.

V.—Application for the admission of patients to the non-maintained beds will be considered by the Committee of Management strictly in the order in which they are received; but the Committee reserve power to decline any application if in their uncontrolled discretion they shall think fit, and they shall not be called upon to give any reason for so doing.

VI.—No patients will be admitted without certificates from his or her medical attendant, and from a member of the Medical Consultative Board of the Sanatorium, in the forms provided, together with an order from the Secretary.

VII.—Patients who have not been nominated to maintained beds will be required to pay a sum not exceeding 10s. per week, which must be paid monthly in advance, the balance of such deposit to be refunded if the patient has for any cause other than misconduct to leave the Sanatorium before the completion of the term.

VIII.—Patients will, as a rule, be admitted for a period not exceeding sixteen weeks; but this period may be curtailed by the Committee of Management if it is deemed advisable, or may be extended for a further period under special circumstances.

* Completes examination.